
**FACULTY OF BUSINESS AND LAW**

**KINGSTON UNIVERSITY**

**THESIS TITLE**

# Technical and Vocational Education and Training to Address Skills Mismatch and Unemployment: The Case of Saudi Arabia

**MARAM TAWEEL**

**A thesis submitted in partial fulfillment of the requirements for the degree Doctor of Philosophy in Human Resources at Kingston University**

**KINGSTON UNIVERSITY BUSINESS SCHOOL**

**June 2018**

## Abstract

Technical Vocational Education and Training (TVET) programmes have been widely promoted as one major strategy to address the problem of skills mismatch, identified as a factor exacerbating unemployment rates. The TVET programmes, if developed well, could significantly contribute to closing the gap between the skills demand and supply in the labour markets. Several countries have implemented TVET strategies, Saudi Arabia included. Results on the success of these TVET programmes are mixed and in the case of Saudi Arabia, the unemployment rates among the targeted TVET recipients has not improved. Thus, this research is aimed at understanding whether Saudi Arabia can address its unemployment problems arising from the skills mismatch through the utilisation of TVET initiatives. In order to gain this understanding, the research investigates the current VET systems, strategies, and policies in addressing problems of unemployment and skills mismatch, and to determine the potential or future development

A qualitative approach, utilising the theoretical lens of critical realism, was adopted in order to gain a deeper understanding of the role of TVET in addressing the skills mismatch and unemployment phenomenon in Saudi Arabia. In particular, three key labour market sectors: public sector, information and communication technology (ICT), and tourism and hospitality sector were selected for a more focussed analysis. Semi-structured interviews were conducted with key representatives from these sectors and analysed using thematic analysis approach. The analysis of the semi-structured interviews was complemented by pilot study and documentary analysis.

The analysis of the primary research data revealed six key areas that should be taken into consideration by stakeholders, especially policy decision makers, in order to address the problem of unemployment among the indigenous Saudis through the current TVET system. These aspects are consistent across the three sectors investigated. The identified areas are: Saudi cultural barriers, Saudi career choices and awareness, understating the labour market and need for skills, wider education system and employment pathways, TVET provision and quality and cooperation between TVET institutions and organisations. The importance of understanding these aspects is because they constitute the 'structural mechanism' necessary for the future development and contribution of TVET to skills mismatch in Saudi Arabia. Thus, it is around these aspects that weaknesses (and strength) of the TVET systems and practices are visible, also within these aspects that stakeholder responsibilities can be defined. Further, through the revealed weaknesses in the current TVET system, such as weak link of TVET institutions with the labour market, suggestions and recommendations are made for policy implications, such as the need to promote education quality in the TVET institutions and encouraging women participation considering the cultural barriers. These findings are supported by secondary evidence, which show, for instance, continued growth in unemployment rates despite the various employment promotion policies and initiatives.

## Acknowledgment

I dedicate this work to my beloved parents for their support and encouragement.

Firstly, I would like to thank my supervisor, **Dr Enda Hannon**, for his patience, guidance, encouragement, and all his valuable advices throughout this PhD.

Secondly, I would like to thank all companies and participants for facilitating my data collection.

Finally, I must express my gratitude to my friend Shaza Sabbagh for her continued support and encouragement.

## List of Tables

## List of Figures

**List of Abbreviations**

| | |
|---|---|
| BCG | Boston Consulting Group's |
| CITC | Communication Information Technology Commission |
| CoE | College of Excellence |
| CoT | College of Technology |
| CPD | Continuous Professional Development |
| CPVPV | Committee for Promotion of Virtue and Prevention of Vice |
| CTE | Career and Technical Education |
| CVET | Continuing Vocational Education and Training |
| EC | European Commission |
| ECS | European Company Survey |
| ECVET | European Credit Transfer System for Vocational Education and Training |
| EQF | European Qualifications Framework |
| ESJ | European Skills and Jobs |
| ETP | Enterprise Training Partnerships |
| EU | European Union |
| CEDEFOP | European Center for the Development of Vocational Training |
| EMEA | Europe, the Middle East and Africa |
| FET | Further Education and Training |
| GAE | General Authority for Entertainment |
| GCC | Gulf Cooperation Council |
| GDP | Gross Domestic Product |
| HRDF | Human Recourse Development and Fund |
| HRM | Human Resource Management |
| HRW | Human Rights Watch |
| ICT | Information Communication Technology |
| ILO | International Labour Organisation/ Office |
| IoT | Internet of Things |
| IVET | Initial Vocational Education and Training |
| KACST | Kind Abdulaziz City for Science and Technology |
| KASP | King Abdullah Scholarship Programme |
| KFUPM | King Fahad University of Petroleum and Minerals |
| MCIT | Ministry of Communications and Information Technology |
| MGI | McKinsey Global Institute |
| MENA | Middle East and North Africa |
| MLSD | Ministry of Labour and Social Development |
| MoD | Ministry of Defence |
| MoE | Ministry of Education |
| MoHE | Ministry of Higher Education |
| MoL | Ministry of Labour |
| MoSA | Ministry of Social Affairs |
| NBHF | National Built Heritage Forum |

| | |
|---|---|
| NGO | Non-Governmental Organisation |
| NCDC | National Centre for Digital Certification |
| NOSS | National Occupation Skills Standards |
| NSJT | National System for Joint Training |
| NTP | National Transformation Plan |
| NVQ | National Vocational Qualifications |
| OECD | Organization for Economic Co-operation and Development |
| OJT | Organisation for Joint Training |
| OJT | On-the-Job-Training |
| PEEC | Public Evaluation Education Centre |
| PIACC | Programme for the International Assessment of Adult Competencies |
| PKI | Public Key Infrastructure |
| SCTA | Saudi Commission of Tourism and Antiques |
| SCTH | Saudi Commission of Tourism and Heritage |
| SCT | Supreme Commission for Tourism |
| SOJT | Structured On-the-Job-Training |
| STC | Saudi Telecom Company |
| STTIM | Saudi Travel and Tourism Investment Market |
| SSS | Saudi Skills Standards |
| SAR | Saudi Arabian Riels |
| SVS | Skills Verification System |
| SWTS | School to Work Transition Survey |
| TGC | Technical Girls College |
| TTC | Technical Trainers College |
| TTCI | Travel and Tourism Competitiveness Index |
| TVET | Technical and Vocational Education and Training |
| TVTC | Technical and Vocational Training Corporation |
| VCGNEP | Vocational College Graduates Non-Employee Programme |
| VET | Vocational and Technical Education |
| VTET | Vocational and Technical Education and Training |
| US$ | United States Dollars |
| WPS | Wage Protection System |

## Table of Contents

**Chapter 3 – Research Design and Methodology**



**Chapter 4 – Overview of Policies and Institutional Context**

**Chapter 8 – Analysis & Discussion**

# 1 Introduction

## 1.1 Introduction

In order to address persistent unemployment problems, governments around the world have been implementing education strategies to close the gap between skill demand and supply (Figueiredo *et al*., 2017; Goel and Vijay, 2017; Livingstone, 2018; Weaver, 2017). These educational strategies include the formulation and implementation of Technical Vocational Education and Training (TVET) programmes. The wider argument is that government should focus more on TVET in order to address the skills mismatch and the associated unemployment (Choy, 2018; McGahern, 2008; McGuiness *et al.*, 2018; Wanyeki *et al.*, 2017). TVET, as a result, has attracted interest from researchers, practitioners, and policy-makers, on its potentiality to address the challenge of skills mismatch and employment generation (Richardson, 2007; McGahern, 2008; King, 2009; Palmer, 2009; Weaver, 2017). This study contributes to this debate on TVET, skills mismatch, and unemployment. In particular, the focus of this research is on investigating the usage of TVET strategies in the context of the Kingdom of Saudi Arabia[1]. Thus, this study investigates the usage of TVET strategies in addressing skills mismatch and unemployment using a case study of the KSA.

The aim of this chapter is to introduce the research. It gives the contextual background and highlights the research problem, research objectives, research questions, the contribution of this study and also its limitations.

Section 1.2 of this chapter considers the socio-economic context of TVET in Saudi Arabia. It highlights issues in the TVET environment in the KSA from economic and social perspectives, with a particular focus on the impact of skills mismatch and use of expatriate workers on unemployment. In Section 1.3, discusses the underlying research problem on skills mismatch and unemployment. The research aims, research objectives, and the research questions associated with the research objectives highlighted in Section 1.4. Section 1.5 outlines the contributions of the research to both the body of knowledge and practice. Section 1.6 presents the design of the research and the selection of a suitable research methodology. Section 1.7 establishes the boundaries of the research and discusses the research limitations. Finally, Section 1.8 presents the structure of the thesis and provides a synopsis of the thesis chapters.

1 This thesis will use 'KSA' and 'Saudi Arabia' interchangeably.

Before giving the contextual background and highlighting the research problem, it is imperative that the key terms of TVET strategies, systems, and policies are defined as used in this research. TVET systems refer to the TVET infrastructure and organisations that have been built or set up to enable strategies and policies to be implemented. This includes infrastructure such as TVET training centres, schools, other educational institutions, transportation, online platforms, and systems. It also includes government organisations, regulatory organisations, legal systems, and institutions. The TVET strategies on the other hand, refers the plans and procedures that have been developed and put in place in order to meet the TVET system goals and objectives. This includes the strategies used by TVET infrastructure and organisations (training organisations, government institutions, private organisations). This also includes collaborative strategies such as the Saudi Arabia's 'Vision 2030'. Finally, TVET Policies represent the formal guidelines and documents which define the objectives of government and private organisations, and set out the strategic plans, systems and legal frameworks which should be implemented to achieve them. These concepts are developed further in Chapter 2. The study's contextual overview of the study is discussed next.

## 1.2 The socio-economic context of TVET in Saudi Arabia

Saudi Arabia has witnessed radical changes in the recent past in many areas, including the political, economic, social, and cultural spheres (DW, 2018; Halpern, 2015; The World Bank, 2018). Of relevance to this research are the socio-economic and cultural changes that provide the context for current skills mismatch and unemployment challenges. Thus, this section discusses the socio-economic and cultural context of Saudi Arabia, considering the social and economic threats caused by unemployment or a lack of skills in KSA. It then highlights how the socio-economic and cultural factors are perceived to influence the level of unemployment and the development of skills. This section also introduces strategies used to address the unemployment problem, and the relationship between unemployment and skills mismatch.

### 1.2.1 Socio-economic threats to the Kingdom of Saudi Arabia

Socio-economic changes in the Gulf Cooperation Council (GCC) countries, including Saudi Arabia, have significantly impacted the cultures and lifestyles in those countries, particularly as these nations have become considerably more open to the rest of the world (International Monetary Fund (IMF), 2016; Richards *et al.*, 2013). This has been evident in various ways such as the extended transportation and communication infrastructures of modern cities and the growing number of multinational corporations operating in the region. Modern KSA has become wealthy quickly mainly due to its position as one of the leading oil producers in the world (Abdel-Rahman, 2006; Kattuah, 2013). However, threats to the socio-economic context in Saudi Arabia have been rising in the last few decades due to three main factors. These factors are: the high dependence on oil and petrochemical industry as the main input to gross domestic product (GDP), especially with unpredictability in market demand; a persistently high unemployment rate among the indigenous population, fuelled by a rapid increase in birth rates and high dependence on foreign workers; and weak female participation in labour markets (Achoui, 2009).

The Saudi government has realised that the current situation of the economy cannot be sustained if the country remains dependent on oil as the main contributor to its GDP (Achoui, 2009; Al-Saleh, 2009; Khashan, 2017; Vision2030, 2018). Although projections show that GCC countries in general and Saudi Arabia in particular are expected to remain among leading oil

producers in the world in the next few decades, oil reserves in Saudi Arabia have already passed their peak in terms of oil production (Howden, 2007; Nashawi, 2010). This situation has been worsened even further by the unpredictability of international oil prices and demand due to the unstable global economic situation (Ghoshray and Johnson, 2010; Nashawi, 2010). This unpredictability of international oil prices persists today (Ahmed *et al.*, 2018; Claes, 2018).

In an attempt to rectify this situation and secure long-term economic stability, Saudi Arabia has been adopting strategies to address the problem of over-dependence on oil, in line with recommendations from a number of international organisations such as The World Bank and the International Monetary Fund (IMF) that have expressed concerns about the detrimental socio-economic effects of over-dependence on the oil industry (e.g. IMF, 2016).

Saudi Arabia has formulated strategies and implemented programmes that should help diversify inputs to its economy and to also create enough jobs for socio-economic cohesion across the country (International Monetary Fund, 2012). The country has, for instance, been implementing economic diversification strategies by attracting foreign investments in underdeveloped sectors (Achoui, 2009; Al-Dosary and Rahman, 2005; Mellahi and Wbod, 2013). These strategies have been successful in attracting a range of multinational organisations to invest in KSA, which have arguably set KSA on the right track to reduce its dependence on oil production. However, diversification strategies have been associated with a persistent unemployment problem in Saudi Arabia (Achoui, 2009; Al-Ali, 2008; General Authority for Statistics (GAS), 2018; Randeree, 2012; Rees *et al.*, 2007). The high rate of unemployment has been widely attributed to an ever-increasing number of expatriate foreign workers (known as expats) moving into Saudi Arabia (Alhamad, 2014; Forstenlechner and Rutledge, 2010; Rajan, 2018). According to Forstenlechner and Rutledge (2010, p. 40), the unemployment problem in KSA has been worsening since the 1960s due to "an influx of expatriate workers", who, "while pivotal to the impressive and rapid transformation of the region's infrastructure, accepted wages at levels far below those being offered to nationals in the public sector". This has resulted in difficulties for the Saudi government to find jobs for its indigenous graduates each year. For example, KSA has been struggling to secure employment for around 100,000 graduates entering the job market each year, despite considerable investments by the private sector and government policies designed to address the unemployment problem (Wilson, 2012). This is particularly challenging as only around a quarter (27.8%) of those at the age of higher/further education pursue a university degree,

whereas the majority of the remaining youngsters join the labour market in some capacity that does not match their skills and motivations (Ministry of Economy and Planning (MEP), 2005).

Thus, whilst Saudi Arabia is arguably on the right track to addressing a key economic issue, which is the country's over-dependence on oil production as the main contributor to GDP, the country however, appears to be unsuccessful in addressing the key social factor relating to this, which is the persistent high rate of unemployment among indigenous Saudis. Persistent high unemployment poses significant threats to socio-economic stability (Rose and Harrison, 2014). Further, the low participation of women in the labour market has been identified as significantly contributing to unemployment (Naseem, 2017).

Accordingly, KSA has been pursuing job nationalisation strategies to gradually replace expatriates with an indigenous workforce, to absorb this indigenous workforce in the labour market, and in doing so to also limit the effects that the increasing numbers of expatriates, with varied origins and ethnicities, have on the heterogeneity and cultures of KSA (Alsheikh, 2015; Othman, 2017).

### 1.2.2 Job nationalisation strategy to address unemployment in Saudi Arabia

In order to tackle the unemployment problem, the KSA government has realised that it is critical to reduce overreliance on expatriate workers whilst continuing its strategies to attract foreign investments (Al-Ali, 1997; Al-Dosary and Rahman 2005; Wilson, 2012). Accordingly, the Saudi government has been implementing job nationalisation programmes in the last few decades to replace expatriates with indigenous Saudi workers (Achoui, 2009; Rees, 2007; Mellahi and Wbod, 2013). For example, successive Saudi governments have been implementing a series of five-year national strategic programmes since the 1970s aimed at the nationalisation of the labour force in Saudi Arabia called "Saudisation" (Alenzi, 2017; Al-Ali, 1997; Al-Dosary and Rahman, 2005). This was planned to be achieved through setting essential policies to reduce high levels of unemployment through "which the government is trying to replace foreign workers with Saudis" (Al-Dosary and Rahman, 2005, p. 495) and introducing "radical changes to employment legislation to try to get more young Saudi nationals into the workforce" (Wilson, 2012, p. 3).

The Eighth Development Plan (EDP) of Saudi Arabia covering the period 2005–2009, for instance, was developed with an objective of reducing the rate of expatriate workers by 5.7% (Ministry of Economy and Planning (MEP), 2005; Ramady, 2010) which was envisaged ultimately to lead to a gradual rise in the rate of employment among indigenous Saudis from 42.7% in 2004 to 51.5% in 2009 in various fields, including agriculture and fisheries, mining (both oil and non-oil), manufacturing (e.g. petrochemicals), utilities (including electricity, gas, water), construction and infrastructure, services (including hospitality and real estate), trade, logistics (including transportation and storage), media, and information and communications technologies (ICT) (MEP, 2005). However, the actual employment was about 47.9% (compared to the planned 51.5%) in 2009. Thus, in the Ninth Development Plan (NDP) (2010-2014), the target employment was set at 53.6% by 2014 thereby reducing unemployment rate among the national workforce to about 5.5% (MEP, 2010).

However, the efforts of the Saudi government to address the unemployment problem through job nationalisation have arguably failed to achieve their planned objectives. This argument is supported by various scholars (e.g. Al-Dosary and Rahman, 2005; Achoui, 2009; Mellahi and Wbod, 2013; Wilson 2012) who have criticised the Saudisation programmes for failing to address the root problems of unemployment. According to Wilson (2012, p. 1) the problem lies in the lack of "creation of sufficient new jobs for young Saudi men and women eager to contribute to the future economy".

These arguments have been associated with debates in practice on whether young indigenous men and women in KSA have the necessary skills to take on jobs, and hence able to replace expatriate workers (Achoui, 2009; Alsarhani, 2010; Saddi *et al.*, 2009). For example, around a third (29.2%) of the labour force in Saudi Arabia joins the job market without any formal education or appropriate training (thus, they are either illiterate or barely know how to read and write) (MEP, 2005). Further, the implementation of job nationalisation programmes may be sending conflicting messages to foreign investors in Saudi Arabia and hence hindering the implementation of strategies for economic diversification. Organisations are compelled by the Saudi regulatory bodies to hire indigenous Saudi workers, while at the same time they are under market pressure to sustain profitability (Achoui, 2009). The organisations are also encouraged to invest in highly skilled industrial manufacturing technology or technologically advanced systems, which may increase reliance on expatriate workers within KSA. Such conflicting messages have implications, which include the need to consider skills development and thus, the potential role of TVET.

Interestingly, these problems are observable across the GCC countries, not only in Saudi Arabia (Mashood *et al.*, 2009). The Saudi government has been creating substantial numbers of new jobs for young indigenous men and women in the last few years through their job nationalisation programmes (Alenzi, 2017; Al-Dosary and Rahman, 2005). However, whether these young indigenous men and women have the required skills to fulfil these jobs, or whether these jobs have been merely 'disguised employment' (i.e. jobs that are not needed, but which are created to enhance unemployment figures) is debatable (Achoui, 2009; Farhan, 2016; Khan and Sultana, 2017; Kuntze and Hormann, 2006).

The job nationalisation strategies adopted by the KSA government to reduce unemployment by replacing expatriates with indigenous workers continue to be a challenge. The debate in practice revolves around whether indigenous workers in KSA possess the required skills to replace expatriate workers and whether job nationalisation programmes have been successful in addressing the skills mismatch between indigenous workers and the needs of organisations in various sectors of the job market (Ministry of Labour and Social Development (MLSD), 2016).

## 1.3 Research problem

The Saudi government has been formulating and implementing strategies to address the challenge of skills mismatch. The skills mismatch represents the gap between the skill demand (skills required by organisations in the job market) and supply (skills acquired by indigenous Saudis from education institutions) (De Ferranti, 2003; Gingras and Roy, 2000). Skills development, which improves skills supply, is a particular domain of technical and vocational education and training (TVET) (Agrawal, 2013; Handel, 2005). The impact of skills mismatch on the productivity of organisations, and hence economies, has been widely debated in the literature (Allen and De Weert, 2007; Green, 2011; Levels *et al.*, 2014). However, in the case of Saudi Arabia, the debate has taken an additional dimension by suggesting an impact of skills mismatch on unemployment. As discussed in the socio-economic context above, unemployment in KSA has long been related to overreliance on expatriate workers (Achoui, 2009; Abdel-Rahman, 2006; Al-Qassimi, 1988; Ramady, 2007), whilst reliance on expatriate workers has been attributed to lack of necessary skills among the indigenous Saudi workforce (Winch and Hyland, 2007; Bosch and Charest 2008; Brockmann *et al.*, 2008; Achoui, 2009; Allais, 2012). This suggests a complex relationship between skills mismatch and unemployment aggravated by an overreliance on expatriates (Achoui, 2009).

In order to address the challenge of skills mismatch, governments in different countries have been reviewing their education strategies, including their TVET strategies (Goel and Vijay, 2017; King, 2009; Livingstone, 2018; Palmer, 2009; Weaver, 2017). TVET, in particular, has been argued to have the potential of playing an important role in "assisting with the smooth matching of the skills wanted by employers with the skills offered by workers" (Richardson, 2007, p. 7). In the case of Saudi Arabia, the government has also realised the important role TVET can play in addressing the challenges of skills mismatch. As part of the country's job nationalisation programmes, the Saudi government has been adopting policies to prepare their indigenous labour force for the job market through education and training (Achoui, 2009; Alhejji and Garavan, 2016). For example, as part of its latest five-year development programme, the Ministry of Labour (MOL) launched the 'Nitaqat' in September 2011 to boost Saudization (Al-Asfour and Khan, 2014). This was later revised in September 2017. Among the key strategies in this Saudisation policy is the establishment of TVET programmes to address the challenge of skills mismatch among the indigenous labour force (Koyame-Marsh, 2016; Sfakiankis, 2011). The ultimate aim has been to create an effective education system that is

driven by the job market to develop a highly skilled indigenous workforce (Al-Sayari, 2007; Achoui, 2009; Baqadir *et al.*, 2011; Hasan, 2015).

The ability, however, of job nationalisation programmes to address the skills mismatch between the indigenous labour force and the needs of the labour markets in KSA has been debated for a relatively long time (Achoui, 2009; Alenzi, 2017; Kattuah, 2013). This debate has continued following the implementation of the TVET programmes, which have failed to achieve the intended objectives or to have any significant impact on the indigenous labour force (Khan and Sultana, 2017; Khashan, 2017; Maclean and Fien, 2017). Although TVET is seen as a potential solution to the problem of unemployment and skills mismatch (Achoui, 2009; Koyame-Marsh, 2016; Madhi and Barrientos, 2003), it has not been able to achieve the desired outcomes, and there is ongoing debate about why this is and how TVET programmes can be improved in order to serve these goals and provide the skills required. Some authors (e.g. Kuntze and Hormann, 2006; Koyame-Marsh, 2016; Sadi and Al-Buraey, 2009; Zhao, 2014) even debate the merits of job nationalisation programmes, further criticising policies that lead to false or misleading outputs and employment figures. For example, there is evidence that employment statistics include indigenous Saudi workers who are not actually working, while in reality expats are hired to do the work (Saudi Gazette, 2016). The focus on Saudisation has also led to employment quotas which private sector organisations meet by employing Saudi students who participate in costly TVET training and preparation programmes, rather than making employment decisions from a wider and more skilled talent pool which includes expatriates (Peck, 2017; Ramady, 2013).

The TVET strategies for addressing skills mismatch and reducing unemployment in Saudi Arabia are therefore faced with particularly complex challenges. These challenges include among others: the effectiveness of the current policies, systems and programmes in engaging the indigenous population in suitable types of education, training and development pathways; the readiness of the current socio-cultural frame of mind in motivating the indigenous labour force to participate in vocational-type jobs; the effectiveness of the current TVET system for developing indigenous Saudi students and equipping them with the skills required by employers; the ability of the private sector to provide indigenous workers with suitable jobs (Achoui, 2009; Alharbi, 2012; Calvert and Al-Shetaiwi, 2002; Prokop, 2003). These challenges define the focus of the current research and the research problem to be addressed. Thus, this research seeks to investigate and help foster understanding of ‘what the causes of

unemployment and skills mismatch among indigenous Saudis are and how these problems can be addressed through TVET systems, strategies and policies?

With the above understanding of the study's context and the research problem, the research aim and objectives are outlined next.

## 1.4 Research aim and research objectives

The aim of this research is to investigate, understand, and define the contribution of TVET systems, strategies, and policies in addressing problems of unemployment and skills mismatch in Saudi Arabia. The study also aims to make suggestions for the development of TVET systems, strategies and policies by exploring and understanding the perspectives of stakeholders within three key sectors of the KSA labour market: the public (or government) sector, the ICT sector and the tourism sector.

### 1.4.1 Research objectives

The underlying theme of the research is whether Saudi Arabia can address the unemployment problems arising from the skills mismatch through the utilisation of TVET initiatives. Thus, the focus is directed at investigating the current and potential contribution of TVET initiatives in influencing employment and overcoming socio-economic and cultural issues (such as low female employment and high dependence on expatriate employment).

The following research objectives will help to address the research aims:

1 To develop an understanding of the relationship between skills mismatch and unemployment in Saudi Arabia

2 To investigate the current and potential role of TVET systems in addressing the skills mismatch by developing skills among the indigenous Saudi workforce.

3 To examine the perspectives of stakeholders within key sectors of the KSA labour market in relation to the current and potential role of TVET systems, strategies and policies.

4 To determine the future development of TVET systems, strategies and policies in Saudi Arabia.

### 1.4.2 Research questions

A better understanding is usually obtained if detailed research questions emerge from the research process, rather than being predetermined at its outset (Saunders and Lewis, 2012). Whilst this may be applicable to this research, the following four research questions that directly address the four research objectives above could be asked:

1. How is the unemployment in Saudi Arabia related to skills mismatch?
2. What are the roles of TVET systems, strategies and policies in developing skills and addressing skills mismatch?
3. What are the perspectives of stakeholders in the key sectors of the KSA labour market on the current and potential role of TVET systems, strategies and policies?
4. What are the best practices and recommendations for the future development of TVET systems, strategies, and policies to solve problems of unemployment and skills mismatch within the socio-economic and cultural context of Saudi Arabia?

## 1.5 Research contribution

This research aims to make a contribution through presenting an empirically supported understanding of the current TVET systems, strategies, and policies addressing the skills mismatch and unemployment challenges in Saudi Arabia. The study further presents the perspectives of stakeholders in key positions within the KSA labour market. From the analysis of the current TVET systems, strategies and policies, including the perspectives of key stakeholders in the labour marker, the study highlights and presents clearly defined set of suggestions for best practices and development of TVET in KSA that should assist in addressing the challenges related to unemployment, skills mismatch and the needs of the labour market within the socio-economic and cultural context of KSA. Thus, the study is also intended to make practical or policy relevant contributions.

### 1.5.1 Contribution to knowledge

This study contributes to the limited literature on TVET in the GCC countries (Crockett, 2014; Khan *et al.*, 2017; Wheeler, 2017) by giving the context of Saudi Arabia, which shares common characteristics to other GCC countries (Nour, 2016). Further, with particular reference to Saudi Arabia, very few studies exist (DeBoer and Ater Kranov, 2017) and thus, this study contributes to filling this research gap. Several aspects in the literature gap exist to which this study makes a contribution. Firstly, there is a general lack of research, not only in Saudi Arabia but other countries especially developing countries (Oketch, 2017), that examine TVET in relation to skills mismatch and unemployment. Thus, this study contributes to this research gap by providing the situation related to TVET systems and the issues of skills mismatch and unemployment in the Saudi Arabia context. Secondly, the study reveals the perception of key stakeholders in the labour market of KSA on the link between TVET and skills mismatch. The perceptions of these key stakeholders have an important role to play in the future development and utilisation of TVET to address the skills gap between the labour market demand and supply.

This study also makes a methodological contribution through elaborating the application of a critical realism perspective to a phenomenon in a developing country perspective. This is important as it helps to highlight the particularities of the Saudi's socio-economic context in

order to reveal the underlying mechanisms that propagate unemployment. The limitations that exist in the application of this research paradigm are also revealed which have implications on the generalisability of research designs.

Further, the study contributes to the growing literature on gender and employment (Albanesi and Sahin, 2018; Baussola *et al.*, 2015; Gimenez-Nadal and Molina, 2014; Van der Meer, 2014) by highlighting women unemployment in the KSA and the socio-cultural factors/challenges that seem to sustain these high gender imbalances. In addition, the role of TVET in reducing the women unemployment caused by the skills shortage is evidenced. This should also result in policy implications (see below).

### 1.5.2 Practical contribution

In addition to the contribution to literature, this study has practical or policy related implications. Firstly, this study highlights the imbalance that exists in terms of the supply and demand of skills in the Saudi labour market. The imbalance that exists particularly with respect to women in the labour market is also emphasised.

Secondly, the effectiveness of the current TVET strategies and policies in addressing the existing skills gap and unemployment issues is revealed from the perspective of the key stakeholders. For instance, the study reveals that the lack of variety in specialisations and educational skills training in many sectors has continued despite the implementation of TVET programmes. This exacerbates the skills shortage and therefore, unemployment among the indigenous Saudis. Further, there exists an overall lack of facilities and supportive systems to accommodate Saudi women's education and skills training in many of the TVET institutional establishments due to socio-cultural factors which hinders the progression of female workers.

Thirdly, whilst the study investigates the role of TVET in addressing skills mismatch and unemployment challenges among the indigenous Saudi men and women, it also implicitly highlights the important role that foreign expatiates contribute to the Saudi labour market.

Thus, this study in highlighting the above has policy related implications. The attention of policy makers, for instance, is directed to the need to reconsider the current TVET strategies and policies in order to address the shortcomings highlighted such as the lack of skills variety

or specialisation in the current TVET programmes. In addition, whilst policies of Saudisation are being implemented, the consideration of women empowerment through skills training could be promoted by developing supportive structures that will overcome the socio-cultural barriers. Thus, policy changes that encourage women participation in TVET could be implemented. Further, whilst the skills development of indigenous Saudis is being implemented to address unemployment, the destabilisation of skills supply could be minimised through creating an environment that promotes a gradual reduction of expatriate dependency.

## 1.6 Methodology

This research is approached from a critical realist perspective. Thus, the research design is directed at obtaining a deep understanding of the role of TVET in addressing the skills mismatch and unemployment phenomenon in the context of Saudi Arabia. A qualitative data collection and analysis approach is adopted in order to facilitate this deep understanding of the structures and mechanism that enhance or inhibit the potentiality of TVET application. Thus, consistent with a critical realist perspective, semi-structured interviews have been conducted with the key stakeholders in the major labour market sectors of tourism, ICT and the public sectors. The institutions within the public sector include the Ministry of Labour, Ministry of Education, Human Resources Development Fund, and the VTET institutions such as the Technical Vocational Training Corporation, Technical Girls College, and Saudi Skills Standards. Organisations from the ICT sector included Cisco, Saudi Telecom Company, and the Communication and Information Technology Commission while the organisations from the tourism sector included the Saudi Commission for Tourism and Heritage, Al Hokair Group, and Movenpick Hotels. The semi-structured interviews were conducted with representatives of these organisations, which included policymakers, directors, trainers, trainees, and graduates. The aim is to seek an understanding of the status quo and to also identify trends related to unemployment, skills mismatch and TVET programmes. Further, documentary analysis and a pilot study approach complement the interview method.

Further, the collected qualitative data has been analysed using a thematic analysis approach following the phases outlined by Braun and Clarke (2006). This involved the definition and identification of key themes from the data. The data has also been interpreted within the context of secondary data relating to the organisations, the sectors, the labour market, and the wider socio-economic and cultural context.

The underlying aim of the adopted methodological framework was to address the research's objectives.

## 1.7 Research boundaries and research limitations

The focus of this research is on the use of TVET to address skills mismatch and unemployment. Thus, the role of education in general (including higher education and further education) lies outside the boundaries of this research. In addition, although the literature differentiates between skills mismatch and skills gap (Baqadir *et al.*, 2011; Cappelli, 2014; Handel, 2003), this research explores the challenge of skills gap as a special case of skills mismatch.

Further, there exists inherent limitation in undertaking such research. For instance, as the study focuses on Saudi Arabia, the results obtained from a qualitative approach may not be generalisable despite their possible relevance in other countries. In addition, there are also methodological limitations that needed to be overcome, such as the researcher's biasness.

## 1.8 Thesis structure

The thesis is organised into nine chapters. This chapter is aimed at providing an introductory outline of the research. It has given the general research background, highlighting the challenges of unemployment and skills mismatch in Saudi Arabia and the perceived role of TVET in helping to address this challenge. The rationale of the research was elaborated with an overall contextual overview of Saudi Arabia's response to the challenge. Further, the research aims, objectives and questions were articulated included the methodological approach. The contribution of the research was then elaborated.

A review of the literature is done in chapter two. This review of the literature focuses on the critique of the theoretical debates on TVET practice and research, and its use in addressing unemployment and skills mismatch. The chapter highlights issues with the skills gap between supply and demand, its impact on unemployment in Saudi Arabia, and how TVET is considered as a potential solution to addressing the skills mismatch, and hence unemployment. The chapter also explores how different countries have implemented TVET to address skills mismatch problems in practice. The concepts emerging from the literature are useful in designing the research methodology and in critiquing the research findings.

Chapter three develops the research methodology and methods for this study. The chapter discusses the critical realism philosophical framework, which underlies this research with its associated ontological and epistemological propositions. It then outlines and justifies the adopted research methods in order to address the research objectives. Primary data is collected using semi-structured interviews whilst secondary documentary evidence complements it. The primary data is analysed using thematic analysis approach.

The purpose of chapter four is to provide the contextual overview of this study. It highlights the policies and institutional context of TVET in Saudi Arabia. The chapter outlines the various agencies and institutions that focus on TVET, and how these have developed over time. It then gives an overview of employment policies and initiatives that focus on TVET and skills, including those that particularly focus on women. The challenges that exist in aligning TVET programmes, policies, and initiatives within the Saudi labour market are also discussed.

Chapters five, six, and seven report the analysis of the key labour market sectors of the public sector, tourism and ICT sectors. Chapter five reports the findings from the public sector. This covers policy makers and TVET training organisation whilst chapter six presents the analysis of the interviews and secondary data from the ICT sector. Chapter seven is then directed at reporting the tourism sector analysis. In these three chapters, the results from both thematic analysis and documentary analysis are presented.

Chapter eight presents a discussion of the results in light of the research aims and objectives. The discussion also presents the comparison with prior studies in attempting to highlight the new insights and the contribution gained from the Saudi Arabia context. Among the aspects discussed include the current policies and systems on TVET, the participation and employment of indigenous Saudis, the skills profiles and labour market needs, the stakeholder responsibilities, the similarities and differences across the examined sectors and the skills, and the suggestions and recommendations for the future development of TVET. In all the discussion, a comparison with relevant literature discussed in chapter two is made.

Chapter nine gives the summary, reflections, and conclusion of the study. It also discusses the prospects for the future development of TVET in addressing the skills mismatch and unemployment in Saudi Arabia and similar countries. The contributions of the study are then emphasised. Further, the limitations of the study are also highlighted. Finally, based on the study, conclusions, and suggestions for future research on TVET, skills mismatch and unemployment are outline.

# 2 Literature Review: Skills mismatch and TVET

## 2.1 Introduction

Technical and vocational education and training (TVET) has been gaining interest among governments worldwide in their efforts to address skills mismatch, especially in the presence of persistent unemployment problems. This research focuses on the case study of Saudi Arabia in light of the critical unemployment problem the country is facing among its indigenous workforce.

To address problems of unemployment, governments in countries around the world have been developing strategies to close a gap between skill demand and supply, particularly in the domain of TVET. For strategies to effectively target unemployment, they must address the issue of skills mismatch. It is therefore vital to understand the definition of skills mismatch, what its sources are, and what economic impact it has. This chapter presents a review of theoretical debates in related literature on TVET practice and research, and TVET's use in addressing skills mismatch.

Section 2.2 of this chapter considers the socio-economic impacts of skills mismatch. It defines the challenge of skills mismatch and highlights issues with the skills gap between supply and demand. It also discusses the effects of skills mismatch and use of expatriate workers on unemployment in the KSA. In Section 2.3, TVET for addressing skills mismatch is explored. The discussion assesses TVET as a potential solution to address part of the skills mismatch and unemployment; to do this, it defines TVET and analyses different TVET model categories. Trends, issues, and debates relating to TVET are considered in Section 2.4, with a focus on Saudi Arabia. Then Section 2.5 discusses various initiatives to strengthen TVET and address skills mismatch by exploring lessons learned from different countries (including the US, Germany and Japan) that use TVET to address skills mismatch and unemployment. Finally, Section 2.6 summarises findings from the literature that will inform the research design and methodology.

## 2.2 Socio-economic impacts of skills mismatch

The challenge of skills mismatch has been debated among researchers, practitioners and policy-makers in various countries worldwide, especially as it has been associated with the persistent problem of unemployment in many countries (Assaad and Roudi-Fahimi, 2007). The following section explores the phenomenon of "skills mismatch" by defining the term in comparison with other terms used to describe interlinked concepts, such as "skills gap" and "skills shortage". Furthermore, the section examines the sources of and reasons leading to skills mismatch, as well as its impact on organisations and on the economy in general. It will also consider the relationship (if any) between skills mismatch and unemployment, with a focus on the experience of Saudi Arabia.

### 2.2.1 Defining skills mismatch

#### 2.2.1.1 Definition of skill

In order to explore the notion of skills mismatch, how it is manifested in the context of Saudi Arabia, and the role of TVET in addressing the concept to tackle high levels of long-term unemployment, particularly among indigenous youth, it is first important to define what constitutes skills.

The concept of "skill" remains one of the most diffuse words in the social science disciplines (economics, psychology, sociology), with many differing perspectives and nuances. Its use in everyday language also signifies multiple meanings, and it has various imprecise translations into other languages (Green, 2016). As such, the word remains ambiguous with no consensus as to what it means.

The Cambridge English dictionaries define the word "skill" as: "an ability to do an activity or job well, especially because you have practised it" (Cambridge English Dictionary, 2018) Historically, the word skill was used in this narrow sense in policy discourse for technical qualities in crafts, trade, and other related occupations that require manual dexterity. However, the concept has evolved with the changing economy, broadening considerably from the narrow focus on learned proficiencies, to encompass the meaning of "competency", as it is used in educational and occupational psychology (Green, 2016).

According to the occupational psychology literature, while the strict or narrow sense of a skill refers to the *what* in terms of the capabilities a person needs to perform a task well, competency takes this to the next level and refers to *how* the learned skills can be translated into a set of behaviours or actions to successfully perform a job (Sturgess, 2012). Sturgess provides an example through the context of computer programming. He argues that in order to effectively write a computer program, one needs analytical, logical, and interpretive ability as well as the skill to write the program in a specific language. According to Sturgess, learning the computer language (Java, C++, C#, etc.) is a Skill, however underlying the ability to use that skill effectively is analytical, logical, and interpretive ability – which consist of Competencies. Indeed, many scholars define competency as a combination of three components – *knowledge*, *skill*, *and attitude* (known as KSA's) – that enable an individual to effectively perform a specific task (Parry, 1996; Lucia and Lepsinger, 1999, and McClelland, 1973). Knowledge is the theoretical understanding of concepts, facts, principles, etc. gained from training and/or experience; skill reflects the practical application of this knowledge; attitude relates to cognitive capacities that enable an individual to learn or perform effectively, such as analytical thinking abilities, motivation, values, interests, traits, common sense, integrity, interpersonal ability etc. (Wilcox, 2012). This definition aligns well with the three domains in the educational psychologist Bloom's taxonomy of learning, namely the cognitive, the psychomotor, and the affective. The cognitive domain relates to mental skills (i.e. the ability to retain and apply knowledge); the psychomotor domain refers to manual or physical skills (i.e. skills); and the affective domain is concerned with behaviour and emotional areas (i.e. attitudes) (Bloom, 1974; cited in Winterton, 2012).

Although, according to the above definition, a skill only makes up one of the three elements of competency, in everyday language the word "skill" is often used synonymously with any one, or combination, of the three. This is likely because success in a digital world relies on much more than simply skill; rather, employers have come to expect employees to possess a dynamic combination of knowledge, skills, and attitudes, i.e. they search for competency. This argument is supported by the Confederation of British Industry (CBI), who, after extensive collaboration with businesses, defined employability skills as: "A set of attributes [attitudes], skills and knowledge that all labour-market participants should possess to ensure they have the capability of being effective in the workplace – to the benefit of themselves, their employer, and the wider economy" (CBI, 2010). Moreover, in neoclassical economics, skill forms one of the main ingredients of "human capital", the second being health. Economists

use the term "human capital" to define the nature of the value that the workforce adds to an organisation (CIPD, 2017a). The term can trace its roots to the early 1960s when the economist Schultz proposed that human capital consists of the "*knowledge, skills, and abilities* of the people employed in an organization" (Schultz, 1961). In 1964, Becker elaborated on this definition to describe human capital as "knowledge, information, ideas, skills, and health of individuals" (Becker, 1962), giving the term the two dimensions of skill and health. Thus, it can be inferred that "human capital" in economics is similar to the term "competency" in occupational psychology.

It is important to note that although the meaning and understanding of competency can differ across cultures (Simpson, 2016), research on competency in different countries shows that it is widely accepted that the labour market requires workers to possess a combination of technical or occupational knowledge and skills as well as appropriate attitudes and behaviours; for example, Allais (2012) on Spain and Badillo-Amador and Vila (2013) on South Africa make the argument that competency of workers in the labour force should encompass not only skills for performing certain tasks but also other knowledge related to specific job types. Moreover, Badillo-Amador and Vila (2013) state that the level of professional skills of South African workers is determined not only by abilities and capacities but also by the knowledge they possess and their attitudes in a specific job environment.

Based on the above discussion, considering that this research examines the underlying relationship between unemployment and skills mismatch, the skills in question are those demanded by the labour market, i.e. employability skills, which include the combination of knowledge, the ability to apply knowledge and understanding, and work-related attitudes and behaviours, as discussed above. Thus, for the purpose of this research, the term "skill" is used to denote all human capital that affects a worker's productivity and is required to successfully perform the tasks in a particular job. A skill therefore encompasses all three components of the term competency, namely one's mental, psychomotor, and affective abilities.

This broad definition of skill can be classified into two distinct typologies: "cognitive" or "hard" skills, and "non-cognitive" or "soft" skills (Green, 2016). The former involve intellectual effort, such as thinking, reasoning, or remembering. Cognitive skills form the knowledge and skills elements of the definition, which are learned through study and practice. The latter encompass attitudes, norms, behaviours, and traits, and involve the attitude element of the

definition, including, for example, motivation, interpersonal ability, and initiative (McKay, 2017).

Moreover, other categorisations of skills as delineated in human capital theory include the distinction between "general" or "transferable" skills and "firm-specific" or "non-transferable" skills; the former consist of skills that have value in all workplaces, and the latter encompass skills directly relevant to an employee's job (Green, 2016) as is important for an economy to develop both.

In light of the above, when investigating skills mismatch it is necessary to examine the type of skill being discussed, as the implications for reform of vocational policies and frameworks may differ significantly depending on the skill. For example, one needs to make the distinction between workers who do not have the essential technical skills to fill a job and those who are judged not to possess the required self-motivation, versatility, adaptability, or other personal characteristics that employers desire and have come to expect. Although both types fall within the broader meaning of skill, and hence both qualify as a form of skill mismatch, the latter is of a form different from that of a lack of technical, cognitive skills, and is arguably more difficult for the TVET system to address.

Now that, for the purpose of this research, the concept of skill has been established, the notion of skills mismatch must be defined.

#### 2.2.1.2 Definition of skills mismatch

A review of relevant literature, as well as informal conversations with practitioners, shows that the concept of "skills mismatch" is ambiguous. As defined by the International Labour Organisation (ILO), skills mismatch is an encompassing term, which refers to various types of imbalances between skills offered, and skills needed in the world of work (ILO, 2014). Thus, one of the problems in defining the concept is confusion over the meaning of the various terms involved, summarised in Table 2.1. Additionally, the measurement of some of the forms of skills mismatch is often complicated and problematic considering that skills and competencies are not readily measured by the statistical programmes in most countries, thus skill proxies are used such as qualifications and years of education at the supply side and

occupations at the demand side (ILO, 2014). Moreover, the review of the literature also reveals a scarcity in research that focuses on investigating skills mismatch (Badillo-Amador and Vila, 2013). Nevertheless, it is imperative for any researcher or practitioner investigating skills problems to be clear on the meaning of the terms used, so that such problems can be practically investigated (Davenport, 2006; Richardson, 2007; Sutherland, 2012). Thus, to be able to research the skills problem in Saudi Arabia, it is critical to define "skills mismatch" by clarifying both concept and measurement of mismatch.

As aforementioned, "skills mismatch" is an all-encompassing term to refer to any situation of imbalance within the labour market, which may be qualitative or quantitative in nature, between the skills possessed by the labour force and the skills required by organisations in the job market, i.e. there is a mismatch between the supply and demand of skills (World Economic Forum, 2014). Considering that the market economy is dynamic, it is unlikely that a condition of sustained equilibrium exists between the types and quantity of skills required and those offered by the workforce. Over time, the normal operation of the labour market is to adjust in a number of ways, such as price and/or quantity, or substitution by other types of labour, to clear the imbalance. However, such disequilibrium becomes a concern when it is prolonged (Richardson, 2007).

Types of mismatch can be subdivided into those measured according to firm-level aggregates, such as skill shortages and skill gaps, and those measured at the level of an individual's circumstances, such as vertical mismatch, horizontal mismatch (field-of-study mismatch), geographical mismatch, and skill obsolescence (ILO, 2014 and McGuinness, Pouliakas, and Redmond, 2017). Each of these is subsequently explained.

With regards to firm-level aggregates, the term "skill mismatch" is mainly restricted to the study of skill shortages and skill gaps. Skill shortages is a mismatch phenomenon that refers to the condition where the demand for workers for a particular skill in the labour market exceeds supply at prevailing wages and conditions for a sustained period (Shah and Burke, 2005). This definition excludes vacancies unfilled due to hygiene factors, such as salary, working conditions, etc. The main indicator of a skill shortage is to the inability of employers to fill job vacancies despite all reasonable efforts due to a lack of adequately skilled candidates, which is commonly referred to as hard-to-fill vacancies (Green, 2016).

According to the National Skills Task Force UK, a skill shortage could result from a lack of unemployed individuals (i.e. very low unemployment rates), geographical imbalances in supply, whereby there are sufficient number of skilled people in the labour market but they are not easily accessible for available jobs (also called geographical mismatch), or a genuine shortfall in the number of appropriately skilled individuals (NSTF, 1998; Strietska-Ilina, 2008).

Skill shortages can be both cyclical and structural in nature. Skill shortages typically vary pro-cyclically, with the indicator increasing during periods of rapid economic growth when unemployment is low and the pool of available skilled workers is reduced to a minimum, and the indicator falling as the economy slows (Green, 2016). Shortages may also occur due to structural changes, such as the adoption of new technology, which could lead to a demand for skills currently unavailable in the market, thereby resulting in shortages while wages adjust and educational and vocational systems adapt to new skill requirements (Quintini, 2011).

Another type of mismatch is when demand for skills exceeds supply internally within a firm i.e. when the level or type of skills of workers currently employed are distinct from those required to perform their jobs adequately (McGuinness, Pouliakas, and Redmond, 2017). In this case, an actual shortage, in terms of the number of individuals willing to work, does not need to exist in the external labour market. Rather, it is a *qualitative* mismatch between the availability of skills and the needs of the labour market (Strietska-Ilina, 2008). This occurs when employers perceive their existing workforce or the workforce across the wider labour market to have inadequate skill types or levels to meet the business objectives and is commonly referred to as a skills gap (NSTF, 1998). Thus, skills shortage refers to the external labour market, while skills gap concerns a firm's internal labour market.

Skills mismatch at the individual level can manifest itself as either vertical or horizontal mismatch. Vertical mismatch refers to the degree to which the skill or education levels a worker or job applicant possesses are above or below those required by the job (McGuinness, Pouliakas, and Redmond, 2017). In the case when education is used as a proxy for skills, vertical skills mismatch is measured by identifying the difference between the education/qualification requirements of a job and the education/qualifications of the workers in the labour force (Sattinger, 2012). When an employee has a higher level of education than is required to do the job, this is termed as over-education. Conversely, under-education refers to situations in which the level of education/qualification of an employee or applicant is lower

than that required for the job. It should be noted that using the level of education or qualification as a measure for skills can be misleading, especially since it reflects neither the abilities and capacities required for a job nor the knowledge involved in performing a job. Workers' attitudes in a specific job environment are also neglected. This argument is supported by scholars such as Di Pietro and Urwin (2006) and Green and McIntosh (2007) who posit that empirical evidence has increasingly shown that skills mismatch is weakly correlated with educational mismatches. Thus, education can only be considered as a loose measure of skill.

Rather, a more pertinent definition of vertical skills mismatch concerns the concepts of over- and under-skilling. Over-skilling refers to the situation when a worker has work-related skills that are too high a level and thus not fully used in their current job (also known as skills under-utilisation), while under-skilling describes the condition when worker skills do not meet the demands of the job (McGuinness, Pouliakas, and Redmond, 2017).

Although the phenomena of over-/under-education and over-/under-skilling appear similar, they are fundamentally different, as illustrated by the following example. A person qualified as a university professor who is working as a receptionist is over-educated, since a PhD is not required to do the job of a receptionist; however, they may lack the necessary communication and organisational skills for the job, hence they would also be considered under-skilled (McGuinness, Pouliakas, and Redmond, 2017).

Horizontal skill mismatch, also called field-of-study mismatch, refers to the situation where workers have the appropriate level of education, skills, and knowledge, yet they are employed in an occupation unrelated to their field of study, i.e. there is a disparity between the type of skills acquired through formal education and those required to perform the job (McGuinness, Pouliakas, and Redmond, 2017). An example would be someone with an engineering degree working in a job that does not require engineering knowledge.

A mismatch can be both horizontal and vertical when someone has a qualification at the wrong level and of the wrong type for the job they occupy.

According to Garcia-Espejo and Ibáñez (2006), horizontal skill mismatch is important to consider alongside vertical mismatch since over-/under-skilling fails to consider the

heterogeneity of skills among people with the same level of education. In other words, it is important to examine whether the perceived skills mismatch is a problem of quality of skills, i.e. the type of skills, which is a horizontal mismatch, or of the level of skills, which is a vertical mismatch.

Another form of skills mismatch is known as geographical mismatch, which exists when workers with the types and levels of skills and education required are not easily accessible in geographical areas where such skills are needed; for example, they may be based in another country or region (World Economic Forum, 2014).

Finally, mismatches in human capital may also relate to the concept of skill obsolescence, which corresponds to the process whereby employees' skills are rendered obsolete and unnecessary due to technological or economic development (economic obsolescence), the deprivation of manual skills due to ageing (physical obsolescence), or through the under-utilisation of skills (skills atrophy) (McGuinness, Pouliakas, and Redmond, 2017).

Table 2.1: Various terms used in research and practice for skills mismatch

| Term | Definition |
|---|---|
| **Over-education** | When a worker has more years of education than the job requires |
| **Under-education** | When a worker has fewer years of education than the job requires |
| **Over-qualification** | When a worker possesses a higher level of qualification than the job requires |
| **Under-qualification** | When a worker possesses a lower level of qualification than the job requires |
| **Over-skilling** | When a worker's skills are not fully utilised in the current job |
| **Under-skilling** | When a worker lacks the skills required to perform the current job to acceptable standards |
| **Skill shortage** | When the demand for workers with a particular skill exceeds the supply |
| **Skill surplus** | When the supply of workers with a particular skill exceeds the demand |
| **Skill gap** | When the type of skill of the worker does not match the skills required by the job |

| | |
|---|---|
| **Skill obsolescence** | When skills previously used in a job are no longer required, have diminished in importance, or deteriorated with time |

Source: adapted from Sattinger (2012)

### 2.2.2 Sources of skills mismatch

As specified above, at the simplest level skills mismatches refer to the failure of skills supply to meet demand. Such mismatches may either be transitory, and hence reflect a temporary imbalance resulting from movement through the economic cycle, or they may be due to structural causes that result from some form of systematic failure (Shah and Burke, 2005)

In terms of the cyclical component of skills mismatch, economic theory stipulates that imbalances in the supply and demand of occupational skills are normal features of a competitive market. If price and wage flexibility exist, the supply of workers in areas of skill shortage will increase in response to increased wages, thereby clearing the imbalance. Yet the price response to shifts in the demand or supply of certain skills may be slow, causing firms to experience skill mismatches (Shah and Burke, 2005). However, this notion that price shifts can resolve the imbalance between the demand for and supply of a skill assumes perfect competition exists. In reality, modern labour markets are more complex and suffer from numerous structural imperfections that reduce the market clearing effect of wage adjustment, thereby increasing its stickiness and exacerbating the skills mismatch problem (Shah and Burke, 2005). Thus, while skill mismatch may be influenced by temporary, cyclical factors, it is the persistence of skill mismatch through time that leads to concern that the imbalances are symptomatic of structural inefficiencies in the allocation of skills, which must then be addressed by policy-makers (Shah and Burke, 2005).

Structural causes of skills mismatch are driven by two main sources, namely a defective educational system and fast changes in the skills required by the job market (Handel, 2003). Indeed, a weak education and training system leads to a decline in human capital development, hence a reduced skilled labour force. This argument is supported in the literature by scholars such as Berkhout *et al.* (2012) and Richardson (2007). For example, Berkhout *et al.* (2012) argue that one of the major sources of skills mismatch is a consistent divergence between skills acquired from education and the skill requirements of jobs in the market. This could be a result of institutional barriers that impinge on training systems' ability

to efficiently respond to changes in skill demand. Examples of such barriers include the way in which the education system incentivises investments in skills, as well as the degree to which costs are shared between the state, individuals, and institutions (Gambin *et al.*, 2016). Suboptimal investments in training in the aggregate may also result from individual rational behaviour. Examples include capital constraints that prevent individuals or employers from investing in training; the reluctance of firms to invest in training due to risk of poaching; or the reluctance of individuals to invest in training due to uncertain returns (Gambin *et al.*, 2016).

As for the second source of skills mismatch – the fast changes in the skills required by the job market – this may be due to continuous changes in job requirements, rapid development in technology, shifts in consumer tastes, and changes to work organisations (ILO, 2017).

Thus, the challenge of skills mismatch in an economy could come from various sources: supply-driven (i.e. appropriateness of skills of the workforce), demand-driven (i.e. fast changes in the skills required by the job market), or, indeed, both.

Skill mismatches may also exist due to other matching frictions on the labour market, and hence may be attributed to the matching process itself. Often this is caused by a lack of information about the job and its requirements, resulting in actors in the labour market making suboptimal choices. For example, Berkhout *et al*. (2012) argue that sometimes workers lack information about the "perfect job" that suits their skills, while employers may also lack information about the "perfect worker" that matches the job. One of the major hindrances to matching workers to jobs is transaction cost, which often stops the process before a "perfect match" is reached, thereby leading to "imperfect matches" between jobs and workers (Berkhout *et al.*, 2012). Other sources of skills mismatch include changes in preference for various types of work, institutional constraints (such as wage rigidities, stringent employment protection legislation, occupational licensing and regulations), immobility in the labour market (by sector, occupation, geography, etc.), and demographic shifts (such as immigration, emigration, and an ageing population) (CEDEFOP, 2010b).

Cedefop, in 2008 define the word "skill" as: "the ability to perform tasks and solve problems" (Ananiadou and Claro, 2009 p.8) and define the word "skills mismatch" as: "Literature on skill mismatch is large and burgeoning, where skill mismatch is usually defined either in terms of

excess (over) or deficient (under) qualifications or skills possessed by individuals relative to job requirements" (CEDEFOP, 2012 p.11)

### 2.2.3 Impact of skills mismatch

Skills mismatch is a widespread phenomenon across the world. As indicated previously, it is unrealistic to expect labour markets to function without temporary imbalances between the skills possessed by workers and those required by organisations, especially as markets are less than perfectly competitive (Sutherland, 2012). However, skill mismatches that are prolonged, or become entrenched, cause significant economic and social losses. Hence, considering we are living in times characterised by rapid technological innovation and accelerating knowledge obsolescence, policy-makers' concerns about skills mismatch has intensified over recent decades as major world economies cite the prevalent coexistence of high unemployment and high job vacancy rates (CEDEFOP, 2015a).

In particular, four mega-trends are changing the nature of work and making the issue of skills mismatch more prominent, namely rapid technological advances, demographic change, globalisation, and shifts in societal values (OECD, 2017a). It is thus important to understand the impact of skills mismatch on all levels of the economy (individual, firm, and the aggregate).

The gap between skills that individuals have and those required by the job market (skills mismatch) signifies poor utilisation of human capital and the fundamental inability of a society to capitalise on its workforce (World Economic Forum, 2014). Consequently, skills mismatch has been shown to severely impact labour-market outcomes, labour productivity, firm competitiveness, and economic growth (ILO, 2017).

In the case of over-education or over-skilling (surplus human capital forms of vertical mismatch), the costs to individuals generally include lower wages, lower job satisfaction, unrealised expectations, and lower return on investment in education. Firms are prevented from reaping the benefits of workers' higher skills, which may lead to reduced productivity, lower growth, reduced ability to innovate and adapt to changing market conditions, and higher staff turnover (World Economic Forum, 2014; Stoevska, 2017). Over-education or over-skilling

may persist over long periods as overqualified individuals get trapped in lower level jobs and crowd out their lesser-skilled counterparts in the job market (CEDEFOP, 2010b).

The incidence of under-education or under-skilling (deficit human capital forms of vertical mismatch) similarly causes lower job satisfaction and unrealised expectations at the individual level, while at the firm level it leads to under-productivity – since the firm is employing people less productively than it should – higher wages, increased job turnover, increased recruitment and training costs, and lower growth. Considering that under-skilled employees are generally paid more than those with the same level of education in matching jobs, they have no incentive to leave, hence deficit skill mismatch also tends to be prolonged (CEDEFOP, 2010b). The related social costs of both forms of vertical mismatch include sunk education costs, high unemployment benefits, and reduced income tax revenues (CEDEFOP, 2010b).

Horizontal mismatches (when the type of education or skills are inappropriate for the job rather than the level) have not been studied as much as vertical mismatches, but they have been shown to have similar negative implications for earnings, job satisfaction, productivity, and turnover (Strietska-Ilina, 2017).

At the macroeconomic level, the impact of skills mismatches is an economy that may be operates at below its potential, suffering from high structural unemployment and reduced gross domestic product growth (GDP) due to decreased labour productivity and labour under-utilisation (World Economic Forum, 2014; Stoevska, 2017).

Similarly, skills shortages and skills gaps negatively affect firms by giving rise to increased salaries, higher recruitment costs, higher turnover, increased training in costs, decreased productivity levels, and lower growth. The duration of skill shortages will be a function of their level and complexity, while the duration of skill gaps is linked to retraining. Again, on a macroeconomic level it contributes to increased structural unemployment and lower GDP growth (World Economic Forum, 2014; Stoevska, 2017).

As a result of the significant economic implications of skills mismatch, policy-makers of various world economies are keen to better understand the incidence of skills mismatch occurring in their respective countries, including the types of prevalent mismatch, the degree and complexity of the mismatch, and how the mismatch changes over time. Depending on the

diagnosis of the root problem, the potential employment and skills policies implemented to effectively address the mismatch would be different. For example, a supply-driven skill mismatch may focus on educational strategies to match curricula with the skills needed in a particular job market, but a demand-driven skills mismatch may focus on developing the job training strategies to continually match the skills of workers in a specific function with the continual skill changes in that function. A more detailed discussion of these policies is presented in Section 2.3.

A crucial step in trying to identify the prevalence of skills mismatches in an economy is to effectively measure them. This has proven to be especially challenging, with numerous approaches used in the literature, mainly with reference to developed countries, as there is likely a lack of available data in low- and middle-income countries. The next section discusses the findings of several studies conducted in relation to the identification of the skills mismatch problem in various global economies.

### 2.2.4 Measurement and evidence of skills mismatch

A widely accepted method for measuring and identifying skills mismatch and related issues, such as skill shortages, is currently lacking. Considering that the notion can be conceptualised in a variety of ways (as explained in 2.2.1.2), analysts and researchers have used several different approaches to compare a worker's skills to the ones required to do a job. These methods can be classified into economy-wide measures, which include market economic indicators such as vacancy and unemployment rates, and microeconomic indicators, such as employer-based surveys, interviews, and focus groups (Shah and Burke, 2005). Recent studies using these methods are discussed below.

#### 2.2.4.1 Macroeconomic level

Economists use the relationship between unemployment and vacancy rates to indicate the extent to which the mismatch between labour supply and demand is structural rather than cyclical (Skills Panorama, 2016). This is graphically represented by the Beveridge curve, which traces a negative relationship between unemployment rates and vacancy rates over the course of a business cycle, showing that a higher rate of unemployment normally occurs with a lower rate of vacancies; in other words, when there are a lot of unfilled jobs, unemployment must be

low otherwise the unemployed individuals would fill the vacant jobs, and conversely job vacancies are low if unemployment is high.

The Beveridge curve provides a means to analyse labour markets for structural unemployment due to skills mismatch, considering that skill mismatches prevent the unemployed from filling vacant jobs since employers are unable to find individuals with the required skills. Therefore, increased skills mismatch means that, for any given level of job openings, the unemployment level is higher. This is indicated by an outward shift of the Beveridge curve. The greater the deterioration in the labour market matching and hiring process, the greater the shift in the curve. Shifts to the left represent increasing matching efficiencies (Beggs, 2017).

From this it can be concluded that if economies are experiencing higher unemployment rates at the same time as higher job vacancy rates, then it can be attributed to declining labour market matching efficiencies due to skill mismatches. This has indeed been shown to be the case in the major European and US economies. In the case of Europe, a study conducted by the European Central Bank (Bonthuis, Jarvis, and Vanhala, 2013) showed an outward shift in the Beveridge curve for the aggregate Euro area following the economic crisis, which was attributed to a marked increase in labour-market mismatches, yet the types and causes of which are up for debate as discussed below. Similar conclusions were drawn from a study conducted by the European Commission (EC) to shed light on labour market matching in the EU. Analysis by the EC confirmed a rightward shift in the EU Beveridge curve, reflecting structural changes that occurred during the crisis, and providing evidence of a worsening skills mismatch across the majority of EU countries, with associated persistent high unemployment (Arpaia, Kiss, and Turrini, 2014).

For the US labour market, the most recent data from the Job Openings and Labor Turnover Survey demonstrates a marked upward shift in the Beveridge curve since the 2008–2009 recession, sparking concerns about skills mismatches in the labour market (Job Openings and Labor Turnover Survey, 2017).

However, the shifting Beveridge curves in Europe and the US have sparked numerous debates about the degree of structural mismatch in these economies, with arguments in the main body of literature focusing on whether these shifts are temporary, and would thus have resulted from cyclical factors (the Beveridge curve typically shifts rightward during times of recession

and reverts back over time), or permanent, which would imply structural changes have occurred. Moreover, other bases for discussion centre on the fact that structural shifts in the curve may not necessarily be due to skill mismatches, since various labour-market characteristics and policies could influence the matching of labour supply and demand. In terms of labour-market characteristics, these include real wages, employment protection legislation, inefficient human resource management practices, inadequate investment in employer training, and the composition of the unemployed population, since it is possible that employers stigmatise certain groups, leading to a prevalence of, for example, young vs old unemployed, long-term vs short-term unemployed, and female vs male unemployed. In terms of labour policies that affect labour matching, these include unemployment benefits, labour taxation, and incentives for job creation (Bova, Jalles, and Kolerus, 2016; CEDEFOP, 2015a).

With this in mind, it is not sufficient simply to consider the Beveridge curve to determine whether skills mismatch is prevalent in a labour economy, since, although a shift in the curve indicates structural difficulties in filling vacancies, it does not provide information as to the underlying causes of such difficulties. Thus, in order to get more specific information regarding the type and degree of mismatch occurring, researchers turn to microeconomic data, both at the firm and individual levels. The measurement methods and findings of microdata analyses are presented below.

#### 2.2.4.2 Microeconomic level

##### *2.2.4.2.1 Key measurement indicators*

Most research to identify the prevalence of skills mismatch implements microdata analyses to make inferences about imbalances. Such measures fall into two categories, namely self-reported skill mismatch indicators, and objective indicators of skills mismatch, each having their advantages and disadvantages.

One of the most common self-reported methods involves conducting employer surveys to ascertain the difficulty employers face in hiring workers with specific skills in particular occupations. In this case, the indicator measured is hard-to-fill vacancies, which, in principle, provides evidence of skills shortages (Richardson, 2007; Shah and Burke 2005).

Another form of self-assessment is to ask workers to compare their skill level with that required for the job and hence to determine whether they have a skills surplus or deficit

(Gambin *et al*, 2016). The advantages of these types of self-assessment measures are that surveys are relatively easy to implement, and they provide up-to-date information; however, they have the disadvantage of being prone to bias (Ackermann-Piek, Perry, and Wiederhold, 2014). For example, as stated by Richardson (2007) in relation to hard-to-fill vacancies, it is difficult to distinguish whether vacancies are indeed difficult to fill due to a shortage of suitably skilled candidates in the labour market or whether the difficulty reflects poor pay or working conditions. This highlights the importance of taking other influential factors into consideration, such as willingness of workers to work; the number of hours they are willing to work; the ability of certain geographic locations to recruit certain skills; the work conditions offered (e.g. work environment, pay packages); the degree of attractiveness to potential workers; the range of ability within a certain skill; and the extent to which a skill would be acceptable to organisations (Richardson, 2007).

The objective approach relies on proxy measures for skills, such as the actual educational level of workers in a particular job compared to the level which is considered appropriate for the job to ascertain the degree of vertical mismatch (over- or under-education). Using qualification mismatch to measure skill mismatch is controversial, since, as mentioned previously, education is an imperfect proxy for skills (Di Pietro and Urwin, 2006; Green and McIntosh, 2007), reflecting only skills learned in formal education and certified training, and neglecting skills learned on the job. Moreover, skills acquired through education may deteriorate if not used or kept up to date, something which is not considered in this measuring method (OECD, 2011). Nevertheless, qualification mismatch is the most studied measure of skills mismatch, since data on workers' education levels is more widely available than data on their skills level. Over-qualification receives significantly more attention than under-qualification due to concerns that it may be a consequence of the increased supply of university and college graduates in several developed countries over the last few decades (Quintini, 2011).

Finally, horizontal skills mismatch is also measured through an objective indicator that measures the number of workers who work in occupations that do not correspond to the field of education studied (Eurostat, 2016).

The literature contains a multitude of reports and studies by various international organisations and governments that use microdata analysis to acquire greater insight into the

global problem of skills mismatch. The following section summarises the most significant findings from the research.

#### *2.2.4.2.2 Summary of microdata evidence*

In recent years, international organisations and governments across the world have conducted numerous microdata research studies in an effort to provide policy-makers with a greater understanding of the type and degree of skills mismatch in existence, and hence to assist them in the development of labour market and training policies aimed at addressing the mismatch challenge. A synthesis of reports from five international organisations leading the skills mismatch debate is presented here. Table 2.2 describes these organisations and their respective research. One point to note is that the majority of the research has focused on more economically developed nations due to the availability of data.

Table 2.2: Descriptions of international organisations and their relevant research studies on skills mismatch

| **Organisation** | **Research study** |
|---|---|
| CEDEFOP: the European Center for the Development of Vocational Training | **European Skills and Jobs (ESJ):** carried out in 2014 to detect education and skill needs in various occupations and sectors in the EU28 member states and to determine the evolution of skills mismatch due to the changing complexity of tasks and skills required by employers. In total, about 49,000 adult employees in the 28 EU Member States took part in the survey (CEDEFOP website). |
| Eurofound: the European Foundation for the Improvement of Living and Working Conditions, providing research findings for the development of social and work-related policies | **European Company Survey:** carried out every four years since 2004–2005, with the latest (the third survey) completed in 2013, and geographically covering 32 countries including, 27 EU member states, Croatia, the Former Yugoslav Republic of Macedonia, Iceland, Montenegro and Turkey and involved interviews with management representatives in 30,000 establishments and employee representatives in 9,000. The focus of the third survey included: workplace organisation and |

| | |
|---|---|
| | innovation, HR practices, employee participation and social dialogue (Eurofound website). |
| Organization for Economic Cooperation and Development (OECD) | **Programme for the International Assessment of Adult Competencies (PIACC):** the survey provides internationally comparable skills data, with the aim of assessing numeracy, literacy and problem-solving skills, to help countries develop ways to further improve these skills. The first wave was conducted in 2011–2012 in 24 OECD countries and the second wave in 2014–2015 in an additional nine countries. In total, approximately 815 million individuals between the ages of 16 and 65 were surveyed in 33 countries (OECD website). |
| International Labour Organisation (ILO): A United Nations agency that deals with international labour problems, such as labour standards, social protection, and work opportunities for all | **Global Product on Jobs and Skills Mismatch:** initiated in 2016 to provide new research and knowledge to better understand skills mismatch and address its labour-market impact in different countries (ILO website). |
| | **School-to-Work Transition Survey (SWTS):** carried out between 2012 and 2015, the survey provides relevant labour market information on 34 low- and middle-income countries (ILO website). |
| ManpowerGroup: A Fortune 500 multinational corporation providing business, professional, and administrative and support services | **Talent Shortage Survey:** the survey is conducted annually and aims to identify the extent to which employers are having difficulty finding the right talent. The 11$^{th}$ Talent Shortage Survey was carried out in 2016–2017 with more than 42,300 employers interviewed in 43 countries (ManpowerGroup website). |

Drawing from the above research, there is evidence that skills mismatch in its various forms is prevalent in various countries around the world. As indicated by the PIACC survey, on average across the 33 OECD countries over one-third of workers are mismatched by qualification, with over 22% of workers reported to be overqualified and 13% reported to be underqualified for their jobs (OECD, 2016a). Similarly, microdata evidence from the ILO global research on mismatch shows the incidence of over-education to be 25% (from a sample of 37 countries) and under-education to be 16% (from a sample of 18 countries) (Strietska-Ilina, 2017).

Moreover, the PIACC survey reveals that, on average, one-quarter of workers report a mismatch between their existing skills and those required for their job, with 18% of workers considered over-skilled and 7% under-skilled (McGowan and Andrews, 2017), while the ILO study indicates greater incidences of skill imbalances across countries, with an average of 21% reported as over-skilled and 25.5% as under-skilled (Strietska-Ilina, 2017). Finally, microdata from PIACC demonstrates that, on average, around 40% of employees are working in areas unrelated to their field of study, making this the most common form of mismatch (OECD, 2016a). Results from ILO's global research similarly yields an average of 37.3% for field-of-study mismatch (Strietska-Ilina, 2017).

Although the magnitude of reported mismatches varies between the surveys, particularly in their measurement of skill imbalances, this is to be expected considering that the studies differ in terms of countries investigated, year of study, and definition and method of measuring available and required skills. Nevertheless, it can clearly be inferred that vertical mismatch (both over-/under-education and over-/under-skilling) and horizontal mismatch are pervasive in modern job markets, albeit with significant cross-country differences in the level and type of mismatch.

In general, the surveys demonstrate that imbalances in the form of over-qualification are more prominent in advanced countries, while under-qualification dominates in lower income countries (World Economic Forum, 2014). The former case is a consequence of developed countries with advanced tertiary education systems experiencing higher growth in the supply of graduates than in the number of high-skilled jobs generated by the labour market, leading to higher rates of graduate unemployment and forcing graduates to find work in jobs that would normally be filled by non-graduates. Additionally, as the supply of high-skilled graduates entering the labour market increases, employers start to demand a minimum tertiary education qualification for traditionally non-graduate roles, despite a lack of change in the skills requirement for such jobs, further exacerbating the issue of over-qualification (World Economic Forum, 2014).

As for the latter case, in poorer economies low educational attainment rates result in poor literacy and numeracy among youth, who consequently often lack the minimum skills required by the labour market, resulting in a significant portion of underqualified workers, with rates as high as 82% in Malawi, 56% in Cambodia, and 55% in Togo (World Economic Forum, 2014).

Similar conclusions were drawn from the ILO's School-to-Work Transition Survey (SWTS), which found high levels of under-qualification among young workers in poorer, factor-driven economies, particularly in sub-Saharan Africa and East Asia (Kupets, 2017). However, the SWTS study shows that in efficiency-driven economies there tends to be a higher incidence of overqualified youth (e.g. 30% in Peru, 32% in Ukraine, and 21% in Armenia) due to the adjustment lag between skill supply and skill demand and the expansion of tertiary education outpacing job growth (Kupets, 2017).

In terms of global skills shortages, findings from the survey indicate that, around the world, many employers complain about an inability to fill job vacancies due to a shortage of talent. Indeed, according to the 2016–2017 Talent Shortage Survey conducted by consulting firm ManpowerGroup, globally 40% of employers reported a shortage, which demonstrates a 2% increase since 2015 (ManpowerGroup website). Talent shortages increased in six of the nine largest economies, as compared to the previous year, including the US, which reported 46% of employers with hard-to-fill vacancies in 2016 as compared to 32% in 2015, the UK, with 18% of employers citing difficulty in filling jobs, which is 4% higher than in 2015 and the highest shortage since 2007, and the EMEA region, which experienced a 36% talent shortage as compared to 32% in 2015 (ManpowerGroup website). Unlike the findings on vertical mismatch, no clear distinctions in the degree of skill shortage exist between advanced and developing countries. For example, Japan has the highest reported incidence of skill shortage at 86%, while 34% of South African employers and 10% of employers in the People's Republic of China reported hard-to-fill vacancies (ManpowerGroup website). Across countries participating in the survey, an average 19% of employers claim a lack of available hard skills or technical competencies (cognitive skills), while 11% believe applicants to be deficient in soft skills or workplace competencies (non-cognitive skills). Globally, skilled trades positions are the most difficult jobs to fill, followed by IT personnel, engineers, and technicians, which emphasises that recurrent skill shortages reflect a lack of available vocational skills (ManpowerGroup website).

Turning to the studies that focus on Europe, the findings paint a similar picture. The CEDEFOP European Skills and Jobs Survey (ESJ) reveals about 30% of European employees possess qualifications not well matched to those required by their job, with 17% of the adult working EU population overqualified and 12% underqualified (CEDEFOP website; Skills Panorama, 2016). The survey indicated substantial differences in the results between EU member states,

with the UK, Czech Republic, Croatia, and Austria reporting relatively high levels of over-qualification, and France, Italy, and Portugal reporting relatively high levels of under-qualification. Skill under-utilisation was also found to be prominent, with 39% of those in employment reported to be over-skilled and only 5% reported to be under-skilled. Again, variation among member states was apparent, with self-reported over-skilling being relatively high in Germany, Ireland, Greece, Austria, and the UK, and self-reported under-skilling relatively high in the Baltic States, Czech Republic, Ireland, and Finland (Skills Panorama, 2016). Skills under-utilisation has increasingly become a concern for European policy-makers, who fear that it is likely to become more widespread due to continued education expansion, coupled with weak job creation and the stagnant trend of job complexity in EU economies (Skills Panorama, 2016). Finally, the results of the ESJ survey show that 22% of employers consider their employees to have lower skills than needed when starting their jobs, which is indicative of skills gaps at recruitment (Skills Panorama, 2016).

With regards to skill shortages in Europe, evidence from Eurofound's 2013 European Company Survey found that around 39% of employers faced recruitment difficulties. As with vertical mismatch, the degree of shortage varies across EU member states, ranging from over 60% of organisations in Austria and the Baltic States who cite difficulties in finding skilled workers, to less than 25% having such difficulties in Greece, Cyprus, Spain, and Croatia (CEDEFOP, 2015a). Despite these results, CEDEFOP (2015a) states that in fact only a subset of these employers is experiencing genuine hard-to-fill vacancies, and it estimates the average European skill shortage to be about 25%, with the remaining firms facing difficulties in locating skills due to inefficient human resources practices, uncompetitive job offers, poor working conditions, or geographical barriers (Skills Panorama, 2016).

From the above, it is clear that skills mismatch is a recurring problem around the world. The phenomenon takes on heightened importance in light of evidence that mismatch is likely to increase unless significant action is taken to mitigate it.

#### *2.2.4.2.3 Projected trends*

The World Economic Forum (2014) states that significant global labour-market imbalances are expected to continue over the coming decades if current trends persist. It predicts that advanced economies will suffer from shortages of low-skilled labour and an over-supply of an

overqualified and over-skilled workforce. As the results of CEDEFOP's forecast of skills supply and demand in Europe up to 2020 demonstrate, the number of individuals acquiring medium- to high-level qualifications is expected to increase, while the number of individuals with low-level or no formal qualification is expected to decrease. On the demand side, although there is projected growth in the number of medium- and high-skilled jobs, the growth rate of such jobs is predicted to be less than the rate of growth of supply of medium- and high-skilled individuals, leading to a surplus of medium- and high-qualified workers. Conversely, the job creation rate of roles requiring workers with low qualifications is expected to decline. However, the ageing working population implies high levels of retirement and hence an increase in replacement demand. Thus, although there may be fewer new jobs requiring low-skilled workers, high replacement needs mean that the total demand for vocational skills may in fact increase. Considering the significant decrease in supply of low-skilled individuals, the demand for lower-skilled workers is thus likely to remain unsatisfied (World Economic Forum, 2014; CEDEFOP, 2010a).

In the case of developing countries, as mentioned above, their shortage of talent is largely attributed to weak education systems that fail to provide the right kind of training to fill the skills gap (Kruger, 2016). According to a study by the McKinsey Global Institute, by 2020 the economies of South Asia (excluding India) and sub-Saharan Africa are projected to face a shortage of about 31 million secondary-school-educated workers. Moreover, the study predicts that these "young developing" economies will experience an over-supply of workers with either no education or an education limited to basic primary school level. To address these labour-market imbalances, these economies will have to significantly raise secondary education enrolment and completion rates. In addition to an over-supply of low-level qualifications and an under-supply of medium-level qualifications, the study states that some "young developing" economies risk facing more college-educated workers than their industries are prepared to employ by 2020. This trend is already evident in some developing countries, particularly in the Middle East and North Africa (MENA) region, where unemployment rates among individuals with tertiary-level qualifications is higher than among those with primary- and secondary-level education due to industry not expanding as fast as the capacity of its higher education system, as well as the lack of private-sector employment, and a large informal economy. For example, in Egypt five million students earned a tertiary-level degree between 1995 and 2006, while the economy only created 1.8 million jobs in skill-intensive service sectors (McKinsey Global Institute, 2012).

As demonstrated by the above, if current patterns in demographics and in the supply and demand of labour persist, the result will be significant imbalances in the global labour market, potentially leading to slower economic growth; increased employment challenges, such as long-term and permanent joblessness; and increased polarisation between highly skilled workers and other members of the labour force. Moreover, for some developing economies it could mean an inability to lift people out of poverty as millions remain trapped in low-skilled jobs (McKinsey Global Institute, 2012).

#### *2.2.4.2.4 Mitigating measures*

The aforementioned misalignment of resources and talent suggests that there is considerable scope to improve the efficiency of human capital allocation. A comprehensive solution that will lead to long-term reduction in skills mismatch requires the equal involvement and commitment of all key stakeholders: employers, education and training providers, individuals, and governments. For employers, it involves the adoption of better hiring practices, and better job design and training provision, such as continual on-the-job training to improve internal skills supply and allow employees to adapt their skills to meet changing job demands thereby reducing the incidence of skill gaps. For individuals and training institutes, it involves the continual investment in skills to prevent skill obsolescence. The state has the role of developing mechanisms that improve the responsiveness of education and training to ensure the effectiveness of skill anticipation and matching systems. Moreover, reducing skills mismatches requires greater accessibility of labour-market information to better guide student learning and career choices, to ensure education and training is in line with occupational needs, and to support geographical labour mobility (Skills Panorama, 2016; World Economic Forum, 2014).

### 2.2.5 Skills mismatch in the MENA region

Considering that skills mismatch varies significantly by country, it is important to determine the situation in the MENA region, and in particular in Saudi Arabia. In 2016 a study was conducted by YouGov (an international market research and data analytics firm) and Bayt (a

leading online job site in the Middle East) to provide an overview of skill imbalances in the job market. Although the study was not as comprehensive as those conducted by international organisations, it helps to shed light on the situation in the Middle East. The study comprised a total of 5,345 interviews, split between employers and job seekers, from 13 countries: Algeria, Bahrain, Egypt, Jordan, Kuwait, Lebanon, Morocco, Oman, Qatar, Saudi Arabia, Syria, Tunisia and the UAE. The highest proportion (26%) of respondents came from Saudi Arabia (YouGov and Bayt, 2016). The study highlighted that employers in the region have difficulty finding candidates with the required skills for senior- and mid- to junior-level positions: 49% of companies interviewed cited hard-to-fill vacancies in junior-level positions, while the difficulty in filling senior-level positions was reported to be 70%. The skills reported to be most difficult to find by employers include soft skills such as communication, critical thinking and problem-solving, organisational skills, leadership skills, and creative thinking. Moreover, across the participating countries an average of 23% of employers claimed that candidates' lack of interest in developing their skills and lack of relevant work experience (i.e. under-skilled candidates) to be major recruitment obstacles. A weak recruitment process was also reported as a significant hindrance to filling vacancies by 30% of employers. With regards to job seekers' feedback, an average of 50% across the MENA region cited difficulties in securing jobs with their current skill-set – in Saudi Arabia, this represented 46% of job seekers. In terms of the reasons for such difficulty, 36% of job seekers in Saudi Arabia claimed to be unaware of the skills required by employers, indicating information asymmetry in the labour market. Moreover, 21% of Saudi respondents reported that educational institutions do not provide them with the required skills to enter the job market, and 13% reported that the government does not offer sufficient programmes to develop the skills of the unemployed, implying an ineffective education and training system which is poorly aligned with labour demand. Finally, 18% of these respondents cited a lack of training opportunities in the workplace, which may suggest incidence of the "free-rider" problem, whereby companies are reluctant to train workers for fear they may be poached by competitors. Indeed, the above results provide strong indication of skill mismatches in the region. When asked whether a skills gap exists, 58% of Saudi respondents (combined employers and job seekers) believed there to be a talent shortage, while the average across the region was 55% (YouGov and Bayt, 2016).

Similarly, the findings from a research study by Baqadir *et al.* (2011) indicate that Saudi workers are unable to meet the skill-level expectations of private-sector employers, with the skills gap attributed to indigenous workers' lack of work ethics, specialised knowledge and

generic skills (Baqadir *et al.*, 2011). Alsarhani (2010) demonstrates that the main cause for the supply–demand mismatch in Saudi Arabia is the lack of development in education and training, while Maroun *et al.* (2008) identify causes of mismatch to be lack of specialisation of workforce skills, lack of relevant employment practice and experience among prospective workers, and inadequate coordination between business and education, which is critical for the establishment of an effective TVET system (as discussed further in 2.4.1.2).

Although the above provides some insight into the skills mismatch challenge in Saudi Arabia, a thorough diagnosis of the problem requires an understanding of the unique workings of Saudi Arabia's labour market, which is discussed below.

### 2.2.6 Saudi Arabian labour market

Saudi Arabia has experienced exceptional economic growth since the discovery of oil in the 1930s and its commercialisation in the 1970s. However, its fast-paced economic development has not coincided with equally agile labour and human capital development. Rather, it paved the way for an influx of cheap foreign labour in labour-intensive occupations, marginalising the local workforce, which lacked the required education and skills to enter the labour market (Elamin and Tlaiss, 2016).

Although Saudi Arabia will remain a massive oil power for the foreseeable future, there has been growing awareness within the Kingdom that achieving sustainable growth and remaining a global player in the Fourth Industrial Revolution requires a focus on knowledge-based development. Thus, since the turn of the twenty-first century, the KSA has firmly set its sights on transitioning into a knowledge economy as a means of diversifying away from the instability of oil dependence and towards a more prosperous and sustainable economic future (Al-Filali, Gallarotti, and Tayyeb, 2012). A key factor in achieving this long-term economic strategy, known as the National Transformation Plan (NTP) as part of Vision 2030, is the ability to reform the labour market, which is beset with an intertwined web of economic, legal, demographic, social, and cultural challenges, as described below (Vision 2030, 2016).

#### 2.2.6.1 Saudi labour-market structure

One of the biggest challenges facing the KSA is that 75% of its nationals are under 40 years of age, with approximately 50% of the population under the age of 25 and 30% below the age of 15 (GAStat, 2017a), indicating a large pool of new and potential workers. This places significant stress on the Saudi government to create jobs and provide sustainable employment for indigenous youth, particularly as the public sector approaches saturation. Thus, high unemployment rates among Saudis persists (Elamin and Tlaiss, 2016): in 2017, the unemployment rate among Saudi nationals was reported to be 13%, while among youth (those aged 20–29) it was reported to be 23% (Jadwa Investment, 2017).

Second, there is a predominance of expatriate labour in the KSA, specifically in the private sector: according to the Interior Ministry's National Information Center, Saudi Arabia has over 7 million expats employed, comprising 57% of the total labour force (GAStat, 2017b) and 83% of the private-sector workforce (Ministry of Labour and Social Development, 2016). As noted above, the rapid growth in oil and petroleum-related industries and projects created a huge demand for labour which the local workforce was unable, or unwilling, to meet due to a lack of skills and a desire to secure local government jobs as policemen, firemen, and in local schools and governmental facilities. To cope with this severe skills shortage, the private sector was thus left to rely on expatriate labour (Elamin and Tlaiss, 2016).

Third, the female participation rate is low despite the growing number of highly educated women: although 57% of university graduates are female, latest figures show that 20.2% of Saudi women enter the workforce after graduation (Ministry of Education Statistics, 2015; Ministry of Labour and Social Development, 2016), which means the state is not realising the return on its investment as the human capital of women is wasted. The unemployment rate of Saudi females is reported to be 33% (Jadwa Investment, 2017).

Fourth, Saudi youth are incentivised to delay entry into the labour market and continue studying, since education is free, a university education is associated with social status, and a graduate degree increases the chances of securing a government or other well-paid job (Al-Asmari, 2008).

Fifth, many native Saudi workers refuse to accept manual or vocational and technical work, which is considered lower social status, as social status in the Kingdom is highly associated with both the type of work and the sector of employment (i.e. public or private). Managerial,

administrative, and professional jobs, particularly in the public sector, are thus considered more prestigious (Elamin and Tlaiss, 2016).

Finally, most Saudi organisations lack human resource management (HRM) practices, as the prevailing culture encourages nepotism and cronyism ("*wasta*") during the selection process. Indeed, many Saudis are reluctant to "apply" for a job as the mere act indicates one's lack of power and connections or *wasta* to land a job and gives the appearance of low social status. Moreover, young Saudis have a strong sense of entitlement and expect to secure middle- to upper-managerial positions upon graduation from college. Additionally, natives feel entitled to higher salaries than those paid to expatriate workers for the same job. Such discriminatory practices are most common in the public sector, as private-sector organisations and multinational corporations are less likely to provide such preferential treatment practices. The result is the use of two distinct sets of recruitment and promotion practices – one for Saudi nationals and one for foreigners (Elamin and Tlaiss, 2016).

#### 2.2.6.2 Labour-market segmentation

As alluded to above, the labour market in Saudi Arabia is highly segmented across several dimensions: between nationals and expatriates; between the public and private sector; and between skilled and un-skilled labour (Al-Asmari, 2008). As revealed by the 2016 Saudi Arabia Labour Market Report, 67% of employed Saudis work in the public sector, with 33% in private-sector employment; whereas 93% of employed non-nationals work in the private sector and only 7% work in government jobs (Ministry of Labour and Social Development, 2016). The most significant factor leading to such segmentation is the disparity between wage and non-wage benefits between the public and private sectors and between nationals and non-nationals (as implied above). Wages in the government sector are substantially higher than in the private sector for jobs with comparable content and skill requirements. Additionally, promotion through the government sector is virtually guaranteed for indigenous workers. Even within the public sector, there is disparity between the wages received by nationals and expats, with Saudis typically entering the labour market at higher levels, commanding higher salaries for comparable jobs, and moving up the career ladder faster. Indeed, the labour market for non-nationals is more transparent and elastic as the KSA's "open-door" policy towards immigrant labour has ensured a sufficient supply of workers at all skill levels and at

competitive prices; hence, salaries for expatriates across the private and public sectors are much more comparable at similar skill levels (Al-Asmari, 2008).

In addition to higher wages and favourable recruitment processes, indigenous Saudis strongly prefer public-sector employment due to generous benefit packages, such as housing, family, and transportation allowances, which are rarely offered in the private sector. Moreover, government employment provides incentives to continue training and education while on the job, whereas training and development activities are rarely perceived as a priority or accounted for in budgets in the private sector. Saudi nationals are also deterred by the intensity of work in the private sector, further skewing demand for migrant labourers (Al-Asmari, 2008; Elamin and Tlaiss, 2016).

Labour-market segmentation is further caused by mismatch between the skills and qualifications of new labour-market entrants and the requirements of the private sector at all skill levels (Al-Asmari, 2008). The majority of Saudi nationals tend to choose to specialise in humanities and social sciences for their tertiary-level education: according to the Ministry of Education, over 65% of Saudis graduated with social sciences and humanities majors, with under 17% majoring in engineering and sciences (Ministry of Education Statistics, 2015), whereas the highest concentration of private-sector jobs lies in engineering, manufacturing, and construction (Ministry of Labour and Social Development, 2016). Thus, highly specialised technical positions are filled by expatriate workers: 56% of high-skilled jobs in Saudi Arabia are occupied by expats (Ministry of Labour and Social Development, 2016). With regards to low-skilled jobs, as previously stated, most Saudis refuse to pursue these jobs due to their perceived low status, leaving a large shortage to be filled with foreign labour: 85% of low-skilled jobs are taken by expats (Ministry of Labour and Social Development, 2016).

Finally, on the demand side, the private sector is disinclined to hire locals considering that: (i) they demand higher wages; (ii) they lack the necessary skills and competencies; (iii) they are perceived as less disciplined and more difficult to manage; (iv) they are widely stereotyped as ineffective and inefficient and as having low performance levels given that, because of *wasta*, they are used to being handed fast career projections without having to perform (Elamin and Tlaiss, 2016).

#### 2.2.6.3 Labour-market policies and challenges

In light of the above, the Saudi government is faced with the challenge of developing effective policies to reduce the segmentation and distortion of the labour market and to increase its efficiency in order to achieve the Kingdom's ambitious plans of Vision 2030. The difficulty and urgency of this challenge are heightened because the government can no longer act as employer of first and last resort due to budgetary restraints required to cut the public wage bill, at a time when there is a rapidly growing number of youth entering the labour force, with about 400,000 Saudis entering annually (Al-Asmari, 2008; Ministry of Labour and Social Development, 2016). As public-sector employment has reached saturation point, the government has turned to the non-oil private sector, which has been a key driver of economic progress in the country in recent years, accounting for 49.3% of nominal GDP in 2015 (Ministry of Labour and Social Development, 2016), to generate jobs and absorb the ever-growing national labour force. This shift in focus has been accompanied by major labour policy reforms, including measures to influence: (i) the quantity of labour through the Saudisation and Nitaqat nationalisation initiatives that enforce quotas on local and international hires of private companies (as discussed in greater detail in Chapter Four) (Al-Asmari, 2008); (ii) the price of labour through cuts to public-sector salaries and levies for foreign employees and their dependents (PWC, 2018); (iii) the quality of labour through significant investments in education and training to ensure that outcomes of the system are in line with labour-market demands (Vision 2030, 2016).

The remainder of this chapter focuses on the third point, namely that the main challenge in human capital development for Saudi Arabia rests on its ability to develop the skills of its local labour force and thereby reduce the supply–demand mismatch. The Saudi government itself has confirmed this notion by identifying TVET "as the most critical lever for improving the value of human resource in the country" (TVTC, 2012). Section 2.3 describes TVET and its common frameworks.

#### 2.2.6.4 Saudi women in the KSA labour force

Women's participation in the labour market adds value to social and economic growth. However, the participation rate of women in Arab countries is very low. Researchers believe

that the absence of Arab women in the workforce is directly linked to the culture, traditions and religion of these countries (Ramady, 2010; Alselaimi and Lord, 2012; Elamin and Omair, 2010). This is particularly the case in GCC countries, with Saudi Arabia among the most influenced by social and gender issues, as reflected by the modest female employment rate of 20.2% in 2016 (Ministry of Labour and Social Development, 2016).

Indeed, there exists a significant number of prominent societal, organisational, structural, and attitudinal barriers in the KSA that impede the development and empowerment of women and create education and workplace disparity between genders (Al-Ahmadi, 2011; Al-Bakr *et al.*, 2017). The case of Saudi Arabia is more extreme than in other GCC countries because the traditional values and discriminatory gender biases that obstruct the careers of Arab women in general are further reinforced by the Wahhabi school of thought, whereby Islamic (Sharia) law governs life (Al-Asfour *et al.*, 2017). Although Sharia law does not forbid women from economic participation and Islam grants women the right to work outside the house, it is the confusion between Islam and culture that is responsible for the disadvantaged status of women in Saudi Arabia (Al-Asfour *et al.*, 2017).

For example, Remady (2010) explains that the strict application of gender segregation laws by conservative groups prohibit men and women from working or studying together in the same room; thus, some institutions, particularly local ones, provide segregated workplaces and schools, and in extreme cases local schools, universities, banks and government institutions may even provide separate buildings for men and women (Al-Bakr *et al.*, 2017). If the workplace is mixed (males and females working in the same room), females are required by law to wear the traditional clothes that cover her head and body (head scarf and Abaya), and, in more conservative cases, the Niqab, which consists of a piece of cloth designed to cover the face and is considered uncomfortable and restrictive for women. Furthermore, fewer opportunities for workplace advancement are granted to women, who are excluded from managerial and decision-making positions, as men in the patriarchal society of KSA refuse to be subordinate to women. Additionally, it is often the case that conservative male clients are unwilling to deal with female employees and insist on working only with men, thereby impacting the effectiveness of women employees (Alhejji *et al.*, 2016). In addition to these limitations on women in the workplace, many fathers and husbands will not permit their wives or daughters to work in mixed-gender workplaces (Alhejji *et al.*, 2016). Moreover, the Saudi education system provides less variety of specialisations for women and prevents them from

studying certain fields, such as engineering technology, architecture, political science, or petroleum-related disciplines (Metcalfe, 2008, Al-Bakr *et al.*, 2017).

Women also face restricted freedom to study, work and travel, as they are required to have permission from their male guardians to be able to perform such activities, which can limit their improvement and development opportunities (Alhejji *et al.*, 2016; Alselaimi and Lord, 2012; Elamin and Omair, 2010).

According to Binti *et al.* (2014), a significant cultural barrier associated with women's reduced participation in the labour market is the high family commitments expected from women in the KSA. When women enter the labour force, they add a new role to their traditional assumed role as homemakers, mothers and wives, which demands significant time and energy and is thus seen as a conflict to their familial and domestic responsibilities. Since there are few structures in place to help women combine their dual roles, such as day-care centres and adequate maternity leave, many working women in KSA struggle from the excessive workload caused by the lack of family–work balance, which eventually reduces their opportunities of professional training and development (Bozionelos, 2009). Women have also traditionally suffered from a lack of mobility that has proven to be a great impediment to their workforce participation, as transportation difficulties have prevented women from working outside the home. However, in September 2017 a Royal Decree overturned the ban on women driving, with the target of issuing drivers' licenses to women by June 2018, which marks a major step towards women's autonomy and independence in the Kingdom (Parker, 2017).

Recognising the loss in human capital from the lack of female workforce participation, the Saudi Arabian ninth five-year development plan (2010–2014) included several initiatives focused on improving the employment rate of Saudi women (as explained in detail in Chapter Four), as well as on encouraging the private sector to facilitate a suitable work environment for Saudi women (e.g. by building new spaces to accommodate female workers). The government has also created new job opportunities for women in economic sectors in which women were previously unable to work due to limitations placed by Islamic law, such as in the judiciary department, with the opening of numerous job titles like "document controllers to clerks, secretaries, case researchers, legal researchers and Shariah researchers", and at airports as customs officers (Qureshi, 2014). Another significant government strategy to empower women was the Royal Decree in 2013 that introduced a 20% quota for women in the

country's previously all-male Shura Council (National Advisory Board), as well as granting women the right to vote in elections (Qureshi, 2014). This marked the first time in the country's history that women were permitted to hold any political office and helped to show that Saudi women are just as capable as men at participating in national responsibilities.

Other examples of regulation and policy reform aimed at strengthening the position of women in the labour market include part-time employment, flexible working hours, teleworking, and the facilitation of promotional opportunities. The results of these have proven to have positive effects, with the Saudi female employment level increasing to 454,000 in 2014 compared to 50,000 in 2009 (Qureshi, 2014). In addition, the United Nations announced that at the end of year 2010 more than 47,000 trade and commerce businesses were owned by Saudi women, demonstrating that women in the KSA are able to gain powerful roles in organisations and to change the traditional role expectations of women (Qureshi, 2014). Additionally, organisations are introducing greater flexibility and developmental opportunities for female employees, particularly among Western companies operating in KSA, which offer "more opportunities for female leaders, allowing flexible work schedules, creating leadership development programs, organizing mentoring programs, and forming corporate women's networks" (McDonagh and Paris, 2012). Despite the growing accessibility for Saudi women among all economic sectors, the disenfranchisement of women is still the most challenging subject in KSA. Therefore, Al-Bakr *et al.* (2017) have suggested enforcing more powerful regulations in order to change old stereotypes and cultural beliefs, as well as to increase awareness about changing gender roles.

However, with regards to nationalisation strategies, such as the Saudisation and Nitaqat quota systems, Al-Asfour and Khan (2014) argue that they fail to achieve gender equality due to unequal pay and opportunities of training and promotion between men and women in the Kingdom. Moreover, according to the Human Rights Watch, Al-Bakr *et al.* (2017) and Ertürk (2009), despite recent relaxations on the guardianship system and on restrictive Saudi labour laws regarding gender segregation in the workplace, Saudi social traditions and values are more effective than government initiatives formulated to reduce gender discrimination.

Alhejji *et al.* (2016) conducted a study in Saudi Arabia to understand the factors that influence gender equality in multinational corporations operating in KSA. It focused on two aspects, namely formal and informal forces, where regulation and policies of the host country (in this

case Saudi Arabia) define the formal forces, and cultural norms and traditions of the host country the informal forces. They found that, although formal forces exist to promote gender equality, informal pressures are formidable in preventing such practices from succeeding, and hence these informal forces reinforce the status quo. This suggests that it is vital for Saudi policy-makers to formulate policies that can elevate gender equality in the workplace and limit the cultural and traditional constraints on female employment. This could also be achieved by implementing appropriate human resources and management practices in multinational and indigenous corporations (Alhejji *et al.*, 2016).

## 2.3 TVET as a potential solution for addressing skills mismatch

TVET has been increasingly attracting interest from researchers, practitioners and policy-makers as a potential solution to the problem of skills mismatch (Richardson, 2007; McGahern, 2008; King, 2009; Palmer, 2009). This has been evident in a growing number of publications on TVET research, as well as a growing number of TVET institutions in practice. There has also been an increase in arguments that governments need to focus more on addressing the challenge of skills mismatch at the level of the education system than at the level of the workplace (McGahern, 2008).

This section explores TVET as a potential solution to the problem of skills mismatch. The section starts by reviewing relevant literature in order to provide a working definition of TVET. Following this, the section explores the main TVET frameworks used in practice.

### 2.3.1 Defining TVET

According to the United Nations Education, Scientific and Cultural Organisation (UNESCO), TVET is an all-encompassing term to define "aspects of the educational process involving, in addition to general education, the study of technologies and related sciences and the acquisition of practical skills, attitudes, understanding and knowledge relating to occupations in various sectors of economic and social life" (UNESCO, 2013a). Thus, TVET equips individuals with a wide range of essential knowledge and competencies for effective contribution to work and life.

The literature shows that different terms are used in various parts of the world to describe elements of the field encompassed by TVET, including: career and technical education (CTE) (US); further education and training (FET) (UK, Ireland and South Africa); apprenticeship training (UK); vocational and technical education (VTE) (Australia); vocational education and training (VET) (European Commission); and vocational and technical education and training (VTET) (South-East Asia) (MacKenzie and Polvere, 2009). Most of these terms are almost identical in meaning and combine both notions of "technical education" and "vocational education" (which are defined below). However, this combined concept is a relatively modern

development, as economic, educational, and societal factors influenced the definition of the original concept, which simply originated as "vocational education" (UNESCO, 2006).

Strictly, "technical education" involves the academic vocational preparation of students for jobs related to applied science and modern technology, with the emphasis on the understanding of the principles and practical application of mathematics and science, rather than on the attainment of manual skills expertise (Encyclopaedia Britannica, 1998). The traditional objective of "vocational education" was the teaching of manual or practical jobs, and it was specifically related to the trade, occupation, or vocation in which the student participated. Vocational education in schools is a relatively modern development as up to the nineteenth century it was provided through apprenticeships for work as traders, technicians, craftsmen, and other blue-collar jobs. The lack of a classical curriculum for such training contributed to the perception of vocational education as being of lower status than other higher education (Encyclopaedia Britannica, 2016). However, although the direct preparation for work remains the focus of vocational education in many developing countries, the revolution in information and communication technology has created new demands for more adaptable, multi-skilled, and creative labour. The intensification of global competition and ICT enabled transition towards a knowledge society, wherein intellectual capabilities have become a primary drive of economic growth, have also influenced understanding and nature of TVET. Thus, the focus of vocational education has broadened towards preparing workers with the knowledge and skills required to meet the challenges of the changing world of work in the knowledge economy (UNESCO, 2006).

As vocational education has evolved over the years to become an important and diverse sub-sector of education and training, so has the terminology used to define it. In order to agree on a common international reference term, in 1999 it was decided during UNESCO's World Congress on TVET that the most comprehensive term, which should be used as a common reference, is Technical and Vocational Education and Training (TVET) (UNESCO, 2006). Accordingly, this study uses the acronym TVET to refer to all types of training that fall into the category of technical and vocational education.

As mentioned above, TVET is an extremely diverse educational sector and activity, taking many forms in a variety of learning contexts (formal,[1] non-formal,[2] and informal[3]) across a wide range of institutional settings (secondary, post-secondary, and tertiary institutions, public and private vocational institutes), as well as in the workplace, and that enable students to develop their knowledge and skills from basic to advanced levels (UNESCO, 2013a). As a result, TVET systems often differ from country to country, and sometimes within countries, given that each country may differ in the objectives of its TVET system, as well as in how the system is embedded within the education and labour-market systems (Pilz, 2016).

Several of the most commonly implemented TVET frameworks are discussed in the next section.

### 2.3.2 TVET frameworks

TVET is differentiated from general education through institutional forms and pathways and through the conceptual forms of practical and applied leaning employed in TVET contrasted with general education's academic and abstract learning (Keating *et al.,* 2002). In many countries, it is common to distinguish between initial vocational education and training (IVET) and continuing vocational education and training (CVET). The former concerns technical and vocational education and training undertaken before or upon first entering an occupation and is carried out either in state-administered TVET institutions or through various forms of apprenticeships. Typically, school students can choose to enter vocational and technical streams as early as the age of 14 as an alternate route to continuing their general education. The vocational streams are designed to lead to early labour-market entry, apprenticeships, or

[1] TVET is formal when it has an educational intention, consists of structured training (in terms of learning objectives, method, support and time) provided by an education or training institute, and is subject to a process of learning outcomes assessment that leads to certification. This type of learning is intentional on the part of the learner (UNESCO, 2010 and Cedefop, 2015c).

[2] Non-formal TVET consists of either regular or intermittent education and training that occurs outside the formal system. It is intentional and structured, but is not associated with a process of certification (UNESCO, 2010 and Cedefop, 2015c). For example, professional conferences and continuing professional development.

[3] Informal TVET consists of learning that results from everyday life that can be related to work, family, or leisure. It may have an educational intention (or not), but is non-structured and has no process of certification. It is part of non-formal learning and is often referred to as experience-based learning (UNESCO, 2010 and Cedefop, 2015c).

technical and vocational courses at the upper secondary and tertiary levels (Keating *et al.,* 2002). Essentially, IVET is designed to provide a narrower, more specific set of skills relevant to a particular field; in this regard. Bosch and Charest (2010) state that "the main difference between VET and higher education lies not in the preparation for work but in the earlier specialization for an occupational field".

CVET involves lifelong vocational training to help individuals to improve or update their knowledge and/or skills, to acquire new skills for a career change or retraining, or to continue their personal and professional development. Depending on the country, it includes on- and off-the job, and formal and informal training funded from numerous sources, such as the state, labour unions, enterprises, and social organisations (Keating *et al.,* 2002).

A comparison between TVET frameworks in different countries offers the potential for a better understanding, and eventually improvement, of TVET policy-making in the context of this research, i.e. in relation to Saudi Arabia. This strategy has been adopted by researchers with the aim of importing/exporting best practices among countries (Powel and Solga, 2008).

This section discusses the main TVET frameworks adopted in leading nations. Generally, scholars distinguish between two dimensions by which to classify TVET models found in practice. The first differentiates TVET provision between two ends of a continuum, reflecting the relative importance of institutional learning and workplace training (Eichhorst *et al.*, 2012). At one end of the continuum sits TVET systems that are purely education-driven, such as the systems applied in many MENA countries, in which all formal vocational education occurs in the classroom, while at the other extreme are market-driven systems that do not include formal theoretical institutional learning, and which focus on "employability", thus training is acquired via work experience or modularised courses (prevalent in the Anglo-Saxon singular model). There are also systems that sit in between, and which combine classroom training with apprenticeships in firms (prevalent in the German dual model) (Eichhorst *et al.*, 2012). The second dimension concerns whether institution-based learning is provided as part of the education system, i.e. whether learning is within formal secondary school frameworks and hence lacks ties to industry, or is within vocational training centres, which often have close links to industry (Eichhorst *et al.*, 2012). Based on these dimensions, TVET provision around the world can be classified into four distinct systems: (i) the liberal market economic model, also known as the singular framework/formal apprenticeship; (ii) the dual system model; (iii)

the state-regulated bureaucratic model, i.e.` vocational/technical secondary schools; (iv) informal training (Eichhorst *et al.*, 2012 and Dixon and Hutton, 2016). More detailed explanation of each is provided below.

#### 2.3.2.1. Singular TVET framework

The basic TVET framework – singular TVET framework – is application-oriented (Brockmann *et al.,* 2008), as it aims to develop the skills of trainees to perform a specific job. It is provided through on-the-job training or modularised training courses (Brockmann, 2011; Clarke, 2011; Hanf, 2011). Vocational qualifications within the singular TVET framework are essentially based on the notion of "competence" as the capability of an individual to apply knowledge, understanding and skills to performing a vocation according to some specific standards that define that vocation (Allais, 2012; Beaumont, 1996; Young, 2011). This competence-based framework is one-dimensional, as it relies on how a task is performed, and requires a minimum knowledge of the field in general; hence, it is referred to in this research as the singular TVET framework.

Typically, the application of this framework is based on a liberal market model, whereby education is regulated through a "market of qualifications" that "enables individuals to enhance their employability by acquiring certification of competencies either through work experience or through courses in a modularised system" (Brockmann, 2011, pp. 120-121). In this way, the nature and type of qualifications acquired are determined both by market mechanisms and by individuals' own decisions, whereby they choose the qualifications from the market and build up their profiles according to what they deem most advantageous to improving their position in the labour market. As a result, it is up to individuals to develop their own employability, in contrast to a TVET framework that is integrated within a comprehensive school system that focuses on education within an occupational field, as is the case with the "dual" and state-regulated bureaucratic systems (Brockmann, 2011). The TVET system therefore reflects the demands of the private market led by industries and firms. Industry sector skill councils decide on the types of occupational qualifications that industry and support firms need to train their workers. Private industries and firms are willing to sponsor worker training and apprentices (Dixon and Hutton, 2016). This is the framework applied in Anglo-Saxon countries, most notably in the UK (Rainbird, 1990; Young, 2011; Allais, 2012; Winterton, 2012). In the mid-1980s, the UK adopted a competence-based approach by

introducing the National Vocational Qualifications (NVQs) in order to address the UK's relative economic decline (Allais, 2012) and to be more responsive to the needs of organisations (Rainbird, 1990; Winterton, 2012). The aim of NVQ is to allow trainees to achieve qualifications in specific vocational areas in a way that shows their competence (what they are able to do), regardless of how, when and where they achieved that competence (Winterton, 2012). Accordingly, to achieve an NVQ, trainees have to show that they meet a set of professional standards of competence, determined by functional analysis of a certain job in a range of contexts (Mansfield and Mitchell, 1996).

The main advantage of the singular TVET framework is that it is easy and quick to implement because it focuses on a single aspect of the vocation, which is how to do the task efficiently (Brockmann, 2011; Clarke, 2011; Hanf, 2011). However, this simplicity also forms the key disadvantage of such a system: since it is based on the ability to acquire discrete, functional skills for existing tasks, it fails to prepare workers for technological changes in the workplace and is not geared towards innovation – rather it is limited to traditional areas of activity defined according to employers' skills needs, thus restricting the capacity to develop new skills areas (Brockmann *et al.,* 2008, p. 241). Moreover, since the system is disconnected from any curricula or pedagogy – with standards and learning outcomes defined by employers – apart from skill development, other dimensions of competence development (such as personal and social competencies) are neglected. Essentially, the system tends to generate a low-skilled workforce, qualified with a narrow set of "skills of yesterday", that has restricted occupational mobility due to the lack of transferable skills (Brockmann, 2011).

In order to address the disadvantages associated with the singular TVET framework, some Anglo-Saxon countries have adjusted their systems to encompass social and behavioural aspects of the vocation. For example, although not as well developed as in other countries, the TVET framework in the US shifted to more classroom-based courses and on-the-job training in organisations, hence enabling apprentices to learn both theoretical aspects and practical skills (Levesque *et al.*, 2008), as in the dual TVET framework (discussed next). Challenges and opportunities of the TVET framework in the US are discussed in more detail in Section 2.5.

#### 2.3.2.2 Dual TVET framework

The dual TVET framework is based on integrating theory and practice by combining the knowledge underpinning a vocation with the skill or competence required to perform it (Parsons *et al.,* 2009; Adams, 2010). Thus, in contrast to the singular TVET framework, the dual TVET framework is curriculum-driven and is delivered through comprehensive educational programmes that are integrated into the overall education system (Brockmann, 2011; Clarke, 2011; Hanf, 2011).

In a dual TVET framework, learners generally attend: (i) an apprenticeship with a host organisation that is responsible for providing the required training set for each vocational occupation; and (ii) a vocational school where the learner acquires the basic technical knowledge and skills. This happens through a number of cycles until the learner masters a vocation both on the theoretical and the practical levels (Parsons *et al.,* 2009; Adams, 2010).

According to Eichhorst *et al.*, 2012, there are four key institutional elements of the dual system. The first is a high degree of formalisation so that training is only provided for centrally accredited occupational qualifications. Training content is adapted continuously to cater to the changing needs of the labour market.

The second element is a strong involvement of social partners (including trade unions) in developing and maintaining curricula at governmental and federal levels, through representative advisory boards. Implementation and monitoring is carried out by regional occupational or trade committees.

The third element identified by Eichhorst *et al.* is the need for vocational colleges to provide the school-based part of the dual programme, which covers both general and occupation-specific education, and the cost of which is borne by the government.

The fourth element is that firms should have the choice of being involved in the system and to participate in training. However, in order to do so, they must first meet technical standards to become accredited as a training firm. The match between firms and trainees follows standard application procedures. The cost of training is borne by the training companies. There is no obligation for accredited firms to provide apprenticeships.

The dual TVET framework is applied in numerous countries, such as the Netherlands (Powel and Solga, 2008; Baartman and de Bruijn, 2011), Denmark (Bosch and Charest, 2008; Powel and Solga, 2008), and Switzerland (Pilz, 2007). However, Germany is the country most associated with the application of the dual TVET framework (Powel and Solga, 2008; Adams, 2010; Fuller and Unwin, 2011; Winterton, 2012).

The dual TVET framework in Germany adopts a practical competence (which is referred to as "action competence"[4]) approach, where the notion of "occupational identity" (*Beruf*) is the guiding principle. "Occupational identity" encompasses the notion of "competence" (*Kompetenz*) as it pertains to the occupation in its various dimensions, including social and personal competencies (Winterton, 2012). Thus, this framework is in line with the taxonomy of educational objectives developed by Bloom (as explained previously), i.e. it is composed of the cognitive, psychomotor, and affective domains.

In essence, the goal of Germany's TVET system is to enable students to "take autonomous and responsible action within the workplace" (Brockmann, 2011, p. 557) by relying on the combined components of occupational, social and individual competencies in any situation (Brockmann, 2011). Thus, the foundations of this system, and its dual nature, lie in work-based learning supported by theoretical knowledge and general education, which are important elements of *Beruf* (occupational identity). This provides an alternative to the traditional academic route into skilled labour by combining educational and occupational pathways (Brockmann, 2011).

In contrast with the prioritisation of "employability" – as in the singular TVET framework – the dual TVET framework prioritises the "readiness" of the TVET learner (both in theory and in practice), in order to maintain "a well-regulated and protected occupation" (Allais, 2012, p. 635). The aim is to develop the skills of TVET learners so they can act independently and proficiently within their vocational field (Brockmann, 2011; Clarke, 2011; Hanf, 2011). Accordingly, the main advantage of the dual framework is that it encompasses the broad occupational field rather than the performance of particular skills, as in the singular framework. This enables TVET apprentices to adapt more easily to future changes in a

[4] "Action competence" concerns the development of competencies (understandings and skills) that enable students to take critical action, in terms of analysing underlying structures and preconditions of the issue being studied. It is thus a problem-oriented approach to learning (Mogensen and Schnack, 2010).

vocation. According to Brockmann *et al.* (2008, p. 241), this framework "equips labour for new areas and for the changing organisation of work".

The dual TVET framework gained considerable appreciation in various organisations due to its more practical outcomes and more "ready" TVET workers, especially since a considerable proportion of these programmes are actually conducted in the workplace (Hippach-Schneider and Weigel, 2012). Thus, the dual TVET framework offers the double advantage of (i) offering apprentices with opportunities to practise their selected vocation through working in an organisation and gaining on-the-job experience, while studying the theoretical framework of the vocation at school, and (ii) offering employers trained workers who already understand the workflow in the organisation. As a result, organisations in Germany that have been involved in TVET dual programmes have reported positively on their experiences with TVET apprentices (Hippach-Schneider and Weigel, 2012). Organisations value the fact that not only have apprentices trained in their companies, but also that they have relationships within the organisation. This positive response to the dual TVET system in Germany has been reflected in a considerable increase (12.5%) in the total provision of dual study courses from 2009 to 2010, together with an increase (6.1%) in the total number of student places (Hippach-Schneider and Weigel, 2012).

Moreover, during times of perpetual technological change, the dual TVET system is thought to be less disposed to education mismatch problems, since firms are expected to continually adjust their training curricula to match the new skills requirements. This is in contrast to school-based training, which relies on timely, and accurate labour-market feedback in order to update the curricula according to changes in skills demand (Eichhorst *et al.*, 2012). Finally, in the case of Germany, studies have shown that participation in the dual TVET programme provides students with faster and more structured integration into the labour market due to the early labour-market contact (Eichhorst *et al.*, 2012).

The dual TVET framework, however, does not come free of problems. Fundamentally, the establishment of an efficient dual TVET system depends on the willingness of organisations to participate (Eichhorst *et al.*, 2012). Organisations can be restricted from training apprentices for several reasons, such as high training costs, including the costs of training facilities and personnel which organisations have to bear, as well as the need to meet strict technical standards in order to become accredited as a training firm (Eichhorst *et al.*, 2012).

Additionally, the voluntary nature of firm participation in the system leads to the problem of cyclical variation in the supply of apprenticeship places as firms tend to adapt their training activities to economic conditions and the projected demand for skills, which makes the number of apprenticeship offers sensitive to economic fluctuations (Eichhorst *et al.*, 2012). Thus, if there are not enough training spots available, youths might have to enter unemployment before integrating into the TVET system.

Another area of concern relates to the problem of disadvantaged youths facing substantial obstacles to entering the dual vocational system since firms are free to choose whether and whom to train. Thus, youths who fail to formally complete schooling, or leave with weak performance, tend to be marginalised from the system. Since it has become expected that youths either have a traditional academic qualification or a vocational certification, those who lack both fail to integrate into the labour market (Biavaschi *et al.*, 2013; Economic Commission, 2005). To resolve this problem, Germany has instituted numerous preparatory training programmes (Biavaschi *et al.*, 2013; Economic Commission, 2005).

Moreover, the dual system has come under fire for being too slow and inflexible, in terms of the ease with which new occupations can be registered into the system and the adaptability of existing training regulations for current occupations, thereby fuelling claims that it is unable to adapt to socio-economic change (Economic Commission, 2005). Additionally, some scholars argue that students in this system spend too much time specialising in one specific professional area in a particular company, leading to short-term, need-oriented education, and giving students little flexibility in their future careers to move easily within the labour market (OBESSU, 2013).

#### 2.3.2.3 State-regulated bureaucratic model, i.e. Vocational/technical secondary schools

In this model, TVET is primarily provided and financed through the central ministry responsible for education, thus TVET is essentially an extension of the national education system. Although public and private companies and labour unions may partner with the government, this is generally at a consultative level (Dixon and Hutton, 2016). Therefore, in this system compulsory schooling provides the option for TVET as an alternative track to academically

oriented learning. Generally, the TVET track follows a formal curriculum that combines general knowledge and practice-oriented knowledge and skills required for specific occupations (Eichhorst *et al.*, 2012). The greatest difference between the two tracks lies in the degree of transferability of skills – often, considering that the vocational track provides skills for a specific occupation, there is less transferability across occupations in comparison to skills obtained through general academic education, which tends to be broader and more all-encompassing. Moreover, it has been shown that students leaving school with a vocational qualification have reduced options for further higher-level education (Eichhorst *et al.*, 2012). Countries that adopt this type of framework include most southern European countries (e.g. Spain, France Italy), as well as MENA countries, eastern European countries and Francophone countries in Central Africa (Eichhorst *et al.*, 2012). Unlike the single and dual systems, all formal vocational education in this model occurs at education institutions; thus, its effectiveness depends on a system of continuous feedback from employers and private-sector institutions to ensure the relevance of curricula. Consequently, most countries that implement this model suffer from a weak linkage between the skills provided by TVET and those demanded by industry (Eichhorst *et al.*, 2012). This has been particularly evident in MENA countries, where, in some cases such as Tunisia, centralised government agencies control the vocational secondary training system, managing it without the involvement of social partners, while in others such as Egypt, Jordan and Lebanon, the difficulty in coordinating a common strategy among the public and private sectors and social partners leads to weak or non-existent labour-market intelligence (Eichhorst *et al.*, 2012).

In order to strengthen the labour-market link, Egypt, in partnership with the EU, implemented an extensive TVET reform programme to establish local and sectoral demand-driven Enterprise Training Partnerships, predominantly in manufacturing, construction, and tourism (Eichhorst *et al.*, 2012).

#### 2.3.2.4 Informal-based TVET

The informal-based TVET system consists of a "traditional" or informal apprenticeship system that lies outside formal vocational or general schooling. It is prevalent in many developing nations, particularly in India and sub-Saharan Africa, where informal apprenticeship has existed for many generations and is entrenched in local traditions and culture, forming the

most important source of skills training in these regions (Eichhorst *et al.*, 2012; ILO, 2012). Despite taking place in the informal sector, this type of training follows locally standardised structures based on a number of informal rules steeped in reputation (of master craftsmen and businesses and the fear of losing it), social sanctions, or reciprocity (as apprentices and master craftsmen expect benefits from future cooperation) (ILO, 2012). Training is generally entirely work-based and consists of contractual agreements between the craftsman and trainee (Eichhorst *et al.*, 2012; ILO, 2012). The challenges of informal training include: (i) the confinement to crafts, which have limited technological innovation; (ii) the limited transferability of acquired skills due to lack of certification; (iii) the lack of general skills learning; (iv) risk of exploitation of young people; (v) gender discrimination based on traditional gender roles, whereby many trades are male-dominated; and (vi) unenforceable contractual agreements resulting in low-quality training (Eichhorst *et al.*, 2012; ILO, 2012).

### 2.3.3 TVET system in Saudi Arabia

As mentioned previously, faced with a need to stimulate the private sector, to support the nationalisation of the workforce, and to diversify its economy and reduce its dependence on oil, Saudi Arabia has embarked on an ambitious Vision 2030 growth strategy and National Transformation Programme. The success of this Vision depends in large measure on significant reforms in every part of the KSA's education system. Integral to this is the need to improve the quality and relevance of TVET provision, turning it into a more effective, sustainable and impactful system that supports every aspect of economic activity in the Kingdom (Vision 2030, 2016).

Over the years, TVET in Saudi Arabia has gone through a number of changes. Initially, it was run by three different government bodies: the Ministry of Education, the Ministry of Labour and Social Affairs, and the Ministry of Municipalities and Rural Affairs. However, the failure to recognise the need for a clear consolidation of policy and common strategy meant that reform was slow and lacked coordination. This led to the establishment of the Technical and Vocational Training Corporation (TVTC) in the 1980s to act as an umbrella organisation for all branches of TVET (Andrews and Playfoot, 2014). The TVTC is responsible for driving policy forward and is both a training provider (through management of numerous TVET colleges and institutes) and a coordinating organisation for TVET provision (Andrews and Playfoot, 2014).

TVET in Saudi Arabia is delivered through multiple pathways, including technical secondary schools as an alternative track to general secondary education; technical colleges and training institutes separate from general education as an alternative to higher education (university); formal apprenticeships in the form of on-the-job training; and informal apprenticeships (Klees, 2013). In recent years, the TVTC has tried several strategies to enhance the quality and provision of practical and work-based skills.

One such strategy concerns the development of the strategic partnership training model whereby the TVTC works closely with, local or international companies in the private sector to provide them with customised training of future employees. Rather than training students through a general curriculum, the strategic partnership programme forms a partnership with a company and formulates the training curriculum based on their specific demands. In this way the TVTC ensures that graduates are fully accredited for the role for which they are being prepared. On the day of graduation, the trainee becomes an employee; hence the term 'strategic partnership' as it is based on training and employing relationship between the two parties who will mutually benefit in the long run. All training infrastructure and resources are provided by the TVTC and funded by the Human Resources Development Fund (HRDF – see Chapter Four for more information) Trainees in this programme are enrolled by signing an employment contract with a specific employer and thus are guaranteed employment post-graduation (Al-Ghafis, 2012 and The Business Year, 2017). Considering the condition of employment post-graduation, such programmes are only built in partnership with sufficiently large companies able to employ a suitable number of trainees annually with financially and socially stable jobs, such as Aramco, Almarai, SABIC and Saudi Arabian Railway (Arab News, 2010 and The Business Year, 2017).

Additionally, the TVTC formed the National System for Joint Training, which aimed to combine institution-based training with in-company training, in which 75% of training consisted of on-the-job practical experience (Al-Ghafis, 2012).

Moreover, in 2013, the TVTC established the Colleges of Excellence (CoE) flagship project programme, which aimed to provide work-based knowledge and skills to Saudi youth through the public–private partnership model. In this model, training colleges and institutes are regulated, financed and overseen by the TVTC and independently operated by well-established international vocational and training colleges and companies (TVTC, 2012; Oxford Business

Group, 2016). The Saudi government builds and finances the colleges, with the international providers managing three-year courses consisting of a foundation year, covering English and IT skills, followed by a two-year post-secondary diploma in numerous specialisations. The CoE programme aimed to significantly expand the provision of training from an estimated less than 10% proportion of the Saudi workforce receiving vocational training in 2012 to rates of 40-45% by the year 2020 (TVTC, 2012; Oxford Business Group, 2016). Crucial to the success of this rapid development was the establishment of a new independent regulatory body, the Saudi Skills Standards (SSS), to ensure skills standards are applied, and training quality is monitored objectively across colleges. The remit of the SSS included the development of National Occupation Skills Standards that are fit for purpose and well aligned to labour-market needs, as well as the provision of external assessments and review of students and institutions (Alamr, 2013). Despite these efforts, by 2016 it had become apparent that up to two-thirds of the new CoEs managed by international partners were having difficulty recruiting and retaining students (Oxford Business Group, 2016).

With the announcement of the further need to improve TVET in Saudi Arabia in 2016 (as part of the NTP), it can be inferred that, as yet, the provision of TVET is not meeting the needs of the labour market. There are several possible limitations that could be hindering the progress of TVET in the region.

First, public funding of TVET is not based on performance or outcomes; rather, the main strategic objective of TVET institutions is quantitative expansion. Thus, since public funding is guaranteed, there lacks incentive to adapt curricula and ensure they remain relevant (ETF, 2005).

Second, the centralisation of TVET institutes could be a major limiting factor to their effectiveness, since lack of administrative autonomy from central ministries means that individual TVET institutions do not have the authority to make decisions on key issues, such as curricula, financial and personnel management, sectors of involvement, and other issues related to the local environment, which hinders their capacity to change (ETF, 2005).

A third possible limitation is that teaching methods in TVET do not impart higher-order cognitive skills, such as critical thinking and problem-solving, but rather tend to emphasise rote

learning. Moreover, overspecialisation in narrowly defined fields of training is commonplace (ETF, 2005).

A fourth limitation is that, despite the importance of informal employment in the country and the potential effectiveness of traditional apprenticeships in the crafts sector, informal-based TVET does not play an important role in the policy agenda, yet this type of training is subject to numerous shortcomings, including large variations in the quality of training, the risk of exploitation etc. (as discussed above). Thus, government involvement could prove beneficial in improving the functioning of traditional apprenticeships (ETF, 2005).

Finally, Saudi society has a long way to go in terms of changing the perception of TVET and attracting more students into TVET institutions, as discussed in more detail in section 2.4.1 (Andrews and Playfoot, 2014).

## 2.4 TVET and skills mismatch in Saudi Arabia: Trends, issues and debates

This section explores the current trends, issues and debates in using TVET to address the challenge of skills mismatch on the levels of individuals, organisations and nations in general. Then the section focuses on trends, issues, and debates that are potentially affecting TVET, with a focus on Saudi Arabia.

### 2.4.1 TVET as a potential solution to address skills mismatch in Saudi Arabia

As previously mentioned, the review of relevant literature shows that skills mismatch leads to negative socio-economic impacts on individuals, organisations and economies (Allen and van der Velden, 2001; Mavromaras *et al.*, 2010; Sutherland, 2012). For decades, policy-makers around the world have arguably used TVET to address the challenges caused by skills mismatch, while many scholars, such as Powel and Solga (2008), Comyn and Barnaart (2010), Mouzakitis (2010) and Nilsson (2010), posit that TVET enhances the productivity of individuals and organisation performance, and hence it improves the socio-economic situation of nations. This is evident, for example, in countries that set adequate TVET policies (e.g. Germany) (Adams, 2010; Fuller and Unwin, 2011). Moreover, number of distinguished global NGOs, such as The World Bank and UNESCO, promote TVET for enhancing economic growth, reducing poverty, and increasing competitiveness of nations (Comyn and Barnaart, 2010; McGrath, 2012 b). This stems from the recognition of TVET as a "source of skills, knowledge and technology needed to drive productivity in the knowledge-based and transition societies of the twenty-first century" (Chakroun *et al.*, 2015, p. 13). Indeed UNESCO's 2030 Agenda for Sustainable Development, adopted in September 2015 to eradicate poverty and achieve sustainable development worldwide, puts education and training at the centre of this ambitious goal, with particular attention devoted to TVET, whereby TVET is expected "to address the multiple demands of an economic, social and environmental nature by helping youth and adults develop the skills they need for employment, decent work and entrepreneurship, promoting equitable, inclusive and sustainable economic growth, and supporting transitions to green economies and environmental sustainability" (UNESCO, 2016a).

This section explores the negative socio-economic effects of skills mismatch in comparison to the positive socio-economic impacts of TVET, and the implications for Saudi Arabia.

#### 2.4.1.1 Impacts at the level of individuals

At the level of individuals, skills mismatch negatively affects their work performance. Research shows that skills mismatch has resulted in reduced pay, increased employment interruptions, and decreased levels of job satisfaction (Allen and van der Velden, 2001; Mavromaras *et al.*, 2010; Sattinger, 2012; Sutherland, 2012).

The skills mismatch problem in Saudi Arabia is further complicated by the reluctance of indigenous workers to take on manual jobs (due to lower social perception), in comparison to other more and less developed nations (Achoui, 2009). As a result, organisations in Saudi Arabia, especially in the private sector, tend to favour hiring expatriate workers. This has resulted in increased unemployment among young males and females, and hence lower income and social status.

In contrast, research shows that TVET has positive impacts in improving both cognitive and non-cognitive skills that are required in the workplace. The benefits of TVET to individuals encompass both financial and non-financial benefits. Financial benefits include, for example, increased earnings (Ferrera *et al.*, 2001), enhanced probability of getting the first job (Tsang, 1997), and more stable employment (Tsang, 1997; Garcia and Fares 2008). Non-financial benefits include increased job satisfaction (Georgellis and Lange, 2007) and more occupational options (Hoeckel, 2008).

The findings of such research are useful when developing policies for TVET in Saudi Arabia. According to Achoui (2009), the Saudi government understands the critical role that culture can play in setting TVET policies. This is evident in the government's vision to develop a social framework for encouraging creativity and entrepreneurship (for both women and men) and for creating more productive job opportunities while maintaining the religious and traditional values of the nation (Achoui, 2009). The overall social issues are discussed in more detail below.

#### 2.4.1.2 Impacts at the level of organisations

At the level of organisations, skills mismatch has negative effects on organisational performance as a result of lower worker productivity (Richardson, 2007; Sattinger, 2012).

The skills mismatch problem in Saudi Arabia is further complicated by issues related to the dominance of family businesses, especially among small and medium enterprises, and related human resource development and management problems (Achoui, 2009). For example, there are noticeable conflicts between values in family-run businesses in comparison to values of private businesses in general. Examples of conflicts between family and business values in Saudi Arabia are summarised by Achoui (2009) in Table 2.3.

Table 2.3: Conflicts between family and business values (adapted from Achoui, 2009)

| HRM/HRD issues | Family values | Business values |
|---|---|---|
| Recruitment | Favouring recruitment of family members (mainly males) | Recruitment is based on competency |
| Compensation | Based on individuals' needs and development | Based on individuals' market values and performance |
| Evaluation | No differentiation among family members | Differentiation to select and reward the best |
| Training and development | Learning opportunities are given based on individuals' needs and development | Learning opportunities are given based on organisations' needs and development |

Research shows that TVET has positive impacts on organisations in terms of lower rates of worker turnover (Blundell *et al.*, 1999), reduced downtime (Hall *et al.*, 2000), reduced input costs (Tsang, 1997), and increased worker productivity (Blundell *et al.*, 1999), and hence it leads to enhanced organisation performance (Powel and Solga, 2008; Comyn and Barnaart, 2010; Mouzakitis, 2010; Nilsson, 2010).

#### 2.4.1.3 Impacts at the level of nations

As mentioned above, skills mismatch has negative effects on the socio-economic situation at the national level (Powel and Solga, 2008; Comyn and Barnaart, 2010; Mouzakitis, 2010; Nilsson, 2010; Sattinger, 2012). For example, Sattinger (2012) argues that skills mismatch has a negative impact on economies that could be manifested as limited potential for growth.

Similar to the levels of individuals and organisations, the skills mismatch problem in Saudi Arabia is further complicated by issues such as smaller population size, more importance given to religion and values, and more rigid application of social traditions (Achoui, 2009). This is evident, for example, in the substantially lower participation of women in general (due to traditional values) in the labour force in Saudi Arabia, in comparison to other more and less developed nations (Achoui, 2009).

On the other hand, benefits to society of TVET include increased economic productivity (Tsang, 1997) and higher taxable earnings (Carnoy, 1994; Tsang, 1997). In addition, elevated education levels are associated with decreased crime, improved health, a better democratic process, maintenance of law and order, and greater political stability (McMahon, 1999). TVET is beneficial to "social inclusion" (Nilsson, 2010, p. 252).

#### 2.4.1.4 Evidence of TVET as a solution to unemployment and skills mismatch

In light of the above, the general impact of TVET has been shown to be significant, since it delivers both market and non-market benefits to individuals, enterprisers, the economy, and society as a whole. Similarly, there is a multitude of research regarding the incidence of skills mismatch and its impact, as demonstrated above. However, little work has focused on the extent to which TVET can be used to address mismatch (CEDEFOP, 2015b). This is likely because the phenomenon is highly complex and multi-dimensional, thereby complicating the collection of data (CEDEFOP, 2015b). Nevertheless, the literature is rife with claims that one solution to the mismatch problem lies in enhancing the effectiveness of TVET to provide a better bridge between the labour market and education (CEDEFOP, 2010b; CEDEFOP, 2015a; CEDEFOP, 2015b, World Economic Forum, 2014).

A study conducted by CEDEFOP (2012) tries to fill the gap by providing a comparative European assessment of the consequences for youth of taking the TVET route, as opposed to the academic route, to the labour market (CEDEFOP, 2012). The findings indicate higher employment rates among young age groups, better matches between occupation and skills, and faster and smoother integration into the labour market (CEDEFOP, 2012). A Eurobarometer survey conducted in 2011 at the request of the European Commission's Directorate-General for Education and Culture echoed these findings (Eurobarometer, 2011). The survey interviewed approximately 27,000 EU citizens in 27 EU member states about the impact of TVET. In summary, 82% of respondents believed that students in TVET acquired skills needed by employers, with 53% claiming that soft skills, in particular communication and teamwork, are acquired. Moreover, 72% of those interviewed believed TVET provides good career opportunities, with 73% claiming that such opportunities are highly demanded by the labour market – indicating that TVET has a role in reducing skills shortage. Finally, 76% of respondents claimed that TVET plays a crucial role in reducing unemployment (Eurobarometer, 2011).

Similarly, a 2012 report conducted by the European Commission on the effectiveness of dual-type apprenticeship schemes in raising employability and facilitating labour-market transitions of apprentices in the EU member states found that these programmes better facilitate school-to-work transitions of students when compared to students with exclusively academic schooling (European Commission, 2012). Moreover, the study indicates that the countries in which the TVET system are more developed are the ones with the lowest youth unemployment rates, with experts suggesting that the low level of unemployment in these countries is largely influenced and supported by the existing dual training system (European Commission, 2012). The report emphasises the benefit of these programmes in providing trainees with the necessary sector-based competencies, particularly in communication, teamwork, conflict management, problem-solving, and negotiation skills, which are generally found to be lacking among traditionally schooled individuals. Finally, it highlights that such schemes are a direct expression of employers' and labour-market needs, since employers will provide training opportunities in areas where they identify skill shortages (European Commission, 2012).

Additionally, research conducted every two years by the Belgian think tank ThinkYoung on skills mismatch in Europe helps to shed light on whether TVET systems have been successful at

addressing skills mismatch. The latest report (Howard and Rimini, 2015) investigates the effective provision of TVET schemes in five major European countries (the UK, Spain, Germany, Austria and France) and their role in addressing youth unemployment. In terms of the ability of TVET programmes in these countries to provide trainees with the required skills for the twenty-first century, such as communication skills, key results of the study show that 75% of graduates believe that their programmes helped them to develop these skills to a greater extent than for non-TVET graduates (72%). Furthermore, the study showed that a higher number of TVET graduates were working in the same field as their area of study (57%), compared to 46% from respondents with a general education and university-based educational background. This suggests that TVET can reduce horizontal mismatch. Finally, it was confirmed that TVET graduates are more likely to be found in employment than their non-TVET counterparts, indicating smoother school-to-work transition as a result of TVET education (Howard and Rimini, 2015).

Evidently, the degree to which TVET is able to reduce skills mismatch depends on the strength of the system implemented and its ability to: (i) keep up to date with labour-market analyses and skills forecasts to ensure provision of education is forward looking; (ii) form close links with the private sector and other key partners to provide support and ensure the relevance of the programmes; (iii) improve TVET's image and status so that it is generally accepted as an attractive option for starting a career; (iv) extend its coverage to a wide pool of beneficiaries, including disadvantaged youth (UNESCO, 2013b). This requires a collaborative and collective process of all stakeholders involved. This is discussed further in the following section.

#### 2.4.1.5 TVET actors and processes

Given its nature, TVET, more so than general education systems, is interconnected between the two major dimensions of education – in terms of ideals and objectives – and work – in terms of labour-market criteria and standards. Moreover, unlike general education, TVET is usually not organised as a single system; rather, it is generally a fragmentation of responsibilities, provided by "a wide range of training institutions including state, non-governmental and private providers, each with differing interests, administrative structure and traditions. Ministers of Education often share responsibility for TVET policy with Ministries of Labour and/or Employment or others" (UNEVOC, 2006, p. 1). Thus, irrespective of differences between countries, all TVET governance frameworks involve complex interactions between

core actors, including governments, education systems, the labour market, industrial relations systems, and young people and their families, with the result that TVET systems tend to be the product of compromises between these players (Bosch and Charest, 2008). Thus, international experience of more modern and formalised TVET models demonstrates that effectively coordinated partnerships between these actors are key to improving the quality and relevance of TVET (Chakroun *et al.*, 2015).

The Boston Consulting Group's (BCG) in-depth research on education in global markets revealed that the success of TVET systems relies on four key socio-economic factors (Puckett *et al.*, 2012):

1. **A coordinated ecosystem:** To ensure that the TVET system represents the interests of all participants, it is important to have an oversight body that works with all actors to determine the strategic direction of TVET and to establish a means for accrediting programmes to improve the attractiveness and credibility of TVET for students and employers (Puckett *et al.*, 2012). For example, Germany's TVET governance council of accreditation and quality control consists of nine members from key stakeholders, including representatives of government, trade unions, industry, TVET providers, and independent scientific experts. The council makes recommendations regarding accreditation to the Federal Ministry of Labour and Social Affairs, which sets regulatory standards that TVET providers must meet (Puckett *et al.*, 2012).

**2. Government performance-based funding and support:** The financial burden of running a successful TVET system is high and demands vast resources. Thus, various governments implement different strategies to diversify funding sources through mobilising other stakeholders (UNESCO-UNEVOC, 2017). For example, some jurisdictions increase learner participation financing of TVET by introducing or increasing training fees (UNESCO-UNEVOC, 2017). In other countries, industry financial participation has expanded significantly. This is the case in apprenticeship dual-type systems whereby part of the cost of training is shifted onto companies. Some governments also introduce apprenticeship taxes and levies (UNESCO-UNEVOC, 2017). In other countries, social contracts between labour, employers and the state create cost sharing (UNESCO, 2016b).

Although collaboration among stakeholders is vital, each stakeholder does not have equal influence – it is essentially the government that must ensure programmes are adequately and

appropriately funded in a way that drives quality of TVET institutions. This requires the aligning of incentives to key performance indicators, which are agreed upon by all stakeholders, such as a strong graduate-employment rate, rather than on learner numbers, which has been shown to encourage institutions only to recruit more learners, regardless of quality of teaching or labour-market fit (Puckett *et al.*, 2012; Chakroun *et al.*, 2016).

3. **Parity between general academic education and TVET:** Traditionally, there is a clear-cut division between general academic education and TVET, as TVET is generally positioned as a distinct education path, to which students who fail to meet general academic standards are directed (Puckett *et al.*, 2012). This generates a negative image of TVET, which may also negatively affect TVET graduate pathways (this is discussed further in section 2.4.3). According to BCG, increasing the mobility between the two paths would help to change this stigma and hence increase student interest in TVET. Recommended ways to achieve this include enabling credit transfers between the two systems, which is likely to attract higher quality students to TVET programmes, and encouraging TVET institutes to offer post-graduation training for both TVET and non-TVET students to acquire new skills after gaining some experience in the workforce (Puckett *et al.*, 2012). For example, Singapore's education system provides multiple interconnected pathways that allow students to transfer to and from TVET and general education, which is considered one reason for the widespread acceptance of Singapore's technical pathway by parents and students (Puckett *et al.*, 2012).

4. **Sustained, collaborative efforts from industry and social partners:** TVET has the potential to reduce skills mismatch by tying skill acquisition to current and expected demand. However, in order to achieve this, it is vital that enterprises and social partners are systematically involved in reconciling the worlds of education and work by providing input on requirements for TVET graduates, including specific skills and labour demand needs, as well as offering students with pathways to the world of work. Thus, industry representatives should collaborate with TVET providers in the planning, design, and delivery of curricula (Puckett *et al.*, 2012). Drawing on private-sector expertise and experience also offers effective means to upskill/reskill TVET trainers and to alter TVET systems in line with the changing needs of the labour market (UNESCO, 2016b). For example, in the German dual TVET systems, social partners have a wide remit, including the ability to determine the duration and structure of TVET programmes, to monitor work-based training, and to ensure the availability of an adequate number of training opportunities (Biavaschi *et al.*, 2013).

After having established the key actors involved in, and the preconditions conducive to, the formation of an effective TVET system, it is important to consider the process for adopting a system similar to the dual German model. The general process for importing TVET systems has been discussed in several studies (Biavaschi *et al.*, 2013; Mouzatikis, 2010; Powel and Solga, 2008), and includes the following stages:

1. **Identification of market needs:** First, a clear understanding of the market failures and skills gaps must be established. Such market needs should be based on several factors: market-related factors, such as current and future domestic production demand which is influenced by economic policies and business regulations; business factors, such as objectives and resource needs; human resource selection factors; pedagogical factors; and cultural factors (Mouzatikis, 2010).
2. **Mobilising relevant stakeholders and resources in the importing country:** This includes ensuring that TVET education providers have the incentives to respond to market demands and to ensure quality (Biavaschi *et al.*, 2013).
3. **Curriculum design:** TVET curriculum development should consider the relationship and alignment of TVET with other parts of the national educational system. Effective curricula should include diverse context and practical skills, and they should be flexible in their delivery in order to provide options for both horizontal (streams) and vertical (higher education) transfer (Mouzatikis, 2010).
4. **Implementation.**
5. **Assessment/feedback mechanism:** To determine the extent of preparation of students for life and work, and hence the effectiveness of the training system, it is essential to assess it using scientific methods. This feedback mechanism should lead to continuous adaptations and adjustments according to both external (e.g. globalisation) and internal (e.g. high labour-force growth) changes (Grossmann and Naanda, 2006). The evaluation process should include: (i) evaluation of the existing situation, including identification of the relevance of the goals of the curriculum to the market needs; (ii) identification of discrepancies and corrective objectives; (iii) implementation of a reform strategy; (iv) evaluation of reform impact; (v) continuous monitoring of performance (UNESCO, 2014).

### 2.4.2 Current debates impacting TVET in Saudi Arabia

Professional observations from practice – supported by the review of related literature – show that TVET policies are a critical factor in the success of TVET in a country. Whereas policy-makers have been relatively successful in some nations (e.g. Germany) in addressing the challenges of skills mismatch, and hence the unemployment problem, other nations (e.g. Saudi Arabia) still suffer from chronic unemployment problems associated with persistent skills mismatch challenges. This section explores current debates impacting TVET in Saudi Arabia by investigating the difference between short- and long-term policy-making and ways of attracting and incentivising TVET learners.

#### 2.4.2.1 Short-term vs long-term TVET policy-making

A vital debate impacting TVET in Saudi Arabia is whether policy-makers should adopt a short- or long-term TVET policy-making strategy. This debate has been widely researched in the literature, which shows a divergence among scholars on the priorities for TVET policy-making in terms of whether policy-makers should adopt a short- or long-term TVET policy. Some scholars, such as King (2009), Mouzakitis (2010) and McGrath (2012), emphasise the importance of TVET policy-making addressing the immediate needs of the market. In contrast, scholars such as Brockmann et al. (2008) and Allais (2012) emphasise the importance of TVET policy-making addressing the long-term needs of an economy.

The short-term policy advocates argue that TVET should address the immediate needs of the market based on the concept of supply and demand (King, 2009; Mouzakitis, 2010; McGrath, 2012). Within this group of scholars, there has been increasing criticism of general education's inability to prepare young people for work (King, 2009; Mouzakitis 2010); hence, there have also been growing calls to use TVET to train more work-ready generations (McGrath, 2012). For example, in the context of Saudi Arabia, TVET is taught in Arabic in most government vocational institutions, while private-sector organisations in the Kingdom require proficient English-speaking skills (Bilboe, 2011).

The long-term policy advocates criticise TVET policies for overlooking the future needs of an economy (Brockmann *et al.*, 2008; Allais, 2012). For example, the French model for TVET in the early 1980s was criticised for being "insufficiently geared to the world of work and/or too

closely linked to micro-level skills requirements" (Brockmann *et al.*, 2008, p. 232). Similarly, Allais (2012, p. 636) argues that TVET policy-making is too "focused on employers' short-term labour-market needs, rather than long-term educational needs of young people or even, perhaps, the long-term needs of the economy", which leads to a shortage in required skills in the labour market.

This discussion among researchers shows that it is critical for TVET policy-makers in Saudi Arabia to decide on which TVET policy approach to adopt: namely, whether to adopt a short- or a long-term TVET policy. Again, divergence can be observed in the works of scholars investigating the challenges of skills mismatch in Saudi Arabia. On the one hand, scholars such as Al-Ansari (2008) and Alzu'be (2012) advocate a short-term TVET policy. Alzu'be (2012) argues that TVET in Saudi Arabia should prepare quality graduates for the actual, current needs of the Saudi labour market, especially in light of the efforts of the Saudi government to transform the country into a competitive global economy, while Al-Ansari (2008) posits that it is critical to improve the skills and qualifications of indigenous workers in a way that makes them closely matched to the current demands of the labour market.

On the other hand, scholars such as Allais (2012) and Alzamil (2014) emphasise the importance of having a long-term vision and strategy in order to create more sustainable plans that deal with the needs of the growing labour market in Saudi Arabia. Alzamil (2014) "proposed self-evaluation standards for technical education in Saudi Arabia. In spite of the cost and time consuming nature of such a two-phase assessment approach, such an approach is a very important and effective tool for improving technical education institutes' performance." Allais (2012, p. 633) argues that "there should be less focus on what employers say they need from employees in the short-term, and more focus on strengthening the educational side of vocational education – building strong curricula based on well-defined areas of knowledge, and developing a better understanding of how to assist students to acquire this knowledge".

In light of these different views, it is vital for Saudi Arabia to strike a balance between the short-term needs of the labour market and the long-term needs of the economy. For this, the KSA needs to learn from the experiences of more developed nations in North America, Europe and Asia (CEDEFOP, 2014a).

#### 2.4.2.2 Attracting and incentivising TVET learners

Another vital debate impacting TVET in Saudi Arabia is how policy-makers can attract and incentivise learners to select TVET as a career strategy as opposed to university education, considering that the former is regarded as inferior in status to the latter (Al Ali, 2008; Achoui, 2009; Mashood *et al.*, 2009; Ramady, 2010).

The review of related literature suggests that a bias against TVET may be hindering its success, particularly in developing countries where TVET systems are still consigned to the periphery, their significance yet to be embraced by either the government or society at large (Wahba, 2010). In these countries, as is the case in Saudi Arabia (as discussed further in the next section), TVET is stigmatised as a last-resort education track for those less academically inclined which leads to less prestigious blue-collar jobs and tends to be regarded as a dead-end option (Chakroun *et al.*, 2015). This negative perception is perpetuated by the fact that TVET systems in these countries are technically weak, resulting in low-quality outcomes for the already disadvantaged youth (Chakroun *et al.*, 2015). Moreover, unbalanced pay and opportunities for promotion between workers in TVET in comparison to their higher educated peers does little to convince students and their parents about the merits of TVET (Bosch and Charest, 2008).

The divide between higher education and TVET has thus prevented many individuals from intentionally selecting TVET as their primary learning and career choice (CEDEFOP 2008). According to CEDEFOP (2008), the main factors that influence the attractiveness of TVET are: (i) the perception of TVET in comparison to other educational choices (particularly academic); (ii) the flexibility of choices, for instance allowing mobility from one choice to another; (iii) the quality of TVET selections; (iv) the provision of career advice, particularly in relation to TVET; and (v) the commitment from stakeholders.

It is vital, therefore, for policy-makers in Saudi Arabia to find ways to incentivise indigenous workers to pursue TVET courses and careers. For this, factors such as reducing dependence on welfare and increasing wage levels could prove to be critical for incentivising and attracting indigenous workers to change their perceptions (Mellahi, 2007; Forstenlechner and Rutledge, 2010; Katou *et al.*, 2010). However, it is equally important that policy-makers in Saudi Arabia find ways to incentivise private-sector organisations to recruit indigenous TVET workers instead of imposing quota policies through job nationalisation programmes that are arguably

not working (as discussed in section 2.4.3). This incentivisation should be based on considerable understanding of the current problems that cause the reluctance of private businesses in Saudi Arabia to recruit indigenous TVET workers.

### 2.4.3 Factors impacting TVET policy-making as a tool to tackle skills mismatch in Saudi Arabia

Following from the above, TVET appears as a potential solution to the challenges of skills mismatch, and hence unemployment problems. However, the success of TVET in addressing the challenges of skills mismatch is determined by the effectiveness of TVET policy-making (Richardson, 2007; Berkhout *et al.*, 2012; Sutherland, 2012), which is arguably affected by the external factors in the environment in which it is practised. This section investigates the factors impacting TVET policy-making by categorising them under economic, socio-cultural, technological, and legal themes.

#### 2.4.3.1 Political aspect

The political environment has a considerable impact on TVET policy-making and its implementation, which is affected by the political processes that "often have more to do with nation-state structures than with market forces" (Powel and Solga, 2008, p. 13). For example, the nation-state structures in Saudi Arabia exhibit unique features in comparison with other developing nations worldwide. According to a report by The World Bank in 2007, this uniqueness stems from the KSA having the second youngest labour force in the world (just behind that of sub-Saharan Africa), accompanied by the highest levels of growth in the labour force, yet the lowest levels of participation of women (The World Bank, 2007).

#### 2.4.3.2 Economic aspect

The relationship between TVET policy-making and an economy is reciprocal. From the perspective of traditional economic theory, the objective of TVET is to teach new skills or to upgrade existing skills in order to raise trainees' productive capacity and hence meet the required manpower needs of the economy (Tsang, 1997). Thus, arguably TVET (especially in

direct comparison to general education) has a more direct relationship with economic growth (Mouzakitis, 2010; Nilsson, 2010).

On the other hand, "current shifts in economic structures require adaptation of TVET systems" (Powel and Solga, 2008, p. 1) to prevent obsolescence of systems. In the last few decades, the world has witnessed paradigm shifts in the economic structures, which impact TVET as a means to prepare a skilled workforce (Powel and Solga, 2008). For example, complexity in world markets, in relation to education, skills, sustainability, and growth, has been increasing at a faster pace in the last few decades (King, 2009). Globalisation and increased competition in the world markets have changed the dynamics for skilled labour (Wiborg, 2008; McGrath, 2012a), making it ever more difficult to identify the longer term demands for labour quantitatively and qualitatively (Baethge, 2006, cited in Powel and Solga, 2008), especially with migration of skilled labour. This is related primarily to the impact of geo-economics, particularly interrelationship issues of balancing production/consumption with distribution of work on a geographical basis (Felstead *et al.*, 2011), thereby affecting the requirements and policy-making of TVET in different countries and/or regions (Adamuti-Trache and Sweet, 2008). Moreover, scholars such as Berkhout *et al.* (2012) argue that demographic changes, accompanied by ageing phenomena in many countries, will lead to tighter labour markets with a rising quantitative mismatch (i.e. skills shortages), resulting in an expected employment gap in Europe alone of 35 million workers by 2050.

In the case of Saudi Arabia, in addition to these global challenges, the great collapse of oil prices in 2014 prompted the regime to set the ambitious goal of steering its economy away from dependency on oil, whose long-term supply and demand dynamics remain unpredictable, towards a knowledge-driven economy (integral to this plan is the strategic reform of 2016). Thus, in order to achieve this shift, the government acknowledges human capital development as key to future economic progress. The vision set by policy-makers for the development of human capital involves improving not only the technical skills of the labour force, but also the innovative and managerial skills (Saudi government, 2002, 2003). However, the uniqueness of the nation-state structures in Saudi Arabia poses the biggest challenge to achieving this vision: as the second youngest labour force in the world accompanied by the highest levels of growth (The World Bank, 2007), the KSA will face a continuous increase in demand for employment, which implies significant challenges for the government, as well as for education and

vocational institutions (Achoui, 2009). This needs to be considered, therefore, in any TVET policy transformation plans.

Moreover, as discussed previously, the majority of Saudi Arabia's labour force comprises foreign workers (57%), despite the nationalisation or Saudisation of the workforce featuring high as part of the Kingdom's labour market reform policy since the Fifth Development Plan (1985–1989). According to Achoui (2009), the reason for the failure of Saudisation to achieve its goals in replacing the expatriate workers in the private sector with indigenous workers are twofold: (i) the inclination of the Saudi private-sector organisations to hire expatriate workers who are more skilled and cheaper (particularly workers coming from countries such as India, Bangladesh, Pakistan, and the Philippines); and (ii) and the reluctance of Saudi private-sector organisations to provide the necessary training of the workforce. This demonstrates a lack of coherence between Saudi Arabia's job nationalisation strategies and its educational strategies and policies, particularly in developing a skilled indigenous workforce. For example, in Saudi Arabia there are ever more graduates in religious studies or humanities, while the labour market requires more technicians (Achoui, 2009). Therefore, it is critical for Saudi Arabia to include private-sector organisations in setting the strategies and policies for developing the necessary human capital.

#### 2.4.3.3 Socio-cultural aspect

TVET policy-making needs to take into consideration the socio-cultural mindsets in a nation, as society's perception of TVET arguably impacts its success, particularly when it affects the self-esteem and feeling of equality among individuals in a society (Bosch and Charest, 2008), and hence their motivation to pursue TVET-related studies and work.

Resistance to TVET, for example, stems from socio-cultural values and beliefs that TVET is "socially unacceptable and economically unrewarding" in comparison to other types of degrees from higher education, and especially from negative attitudes "towards work that encompasses service, trades and non-management/business ownership status" (Bilboe, 2011, p. 256). The opposite is also arguably true: the success of TVET is related to values and beliefs that perceive TVET as socially acceptable and economically rewarding, in comparison to other types of higher education.

In Saudi Arabia, professional observations in practice show that TVET has been associated with a lower social status (Achoui, 2009). This is evident in the general tendency among indigenous workers in Saudi Arabia to disregard TVET-related blue-collar jobs as being of a lower type (in comparison to university-graduate-related white-collar jobs), which is usually performed by expatriate workers (Achoui, 2009). These observations are supported in research by Al-Humaid (2003) and Al-Dosary *et al.* (2006), who found that Saudis (especially youngsters) tend to perceive TVET as not fitting with the expectations of their society and, particularly, their parents.

Nations where TVET is positively perceived by society have passed through similar experiences (i.e. the association of TVET with a lower social status). For example, the French TVET experience in the early 1980s shows that TVET was regarded as lower status by society (Brockmann *et al.*, 2008). However, as these nations have worked on improving their TVET models and policies, their socio-cultural values and beliefs have changed over the years, especially as individuals and their families have experienced benefits from undertaking TVET (Bosch and Charest, 2008). TVET, for example, has "enabled many young people from working-class backgrounds to move into relatively well-paid occupations with high social prestige" (Bosch and Charest, 2008, p. 428).

The socio-cultural impact on TVET learners may even be aggravated if individuals undertaking TVET feel that they are discriminated against on any basis (e.g. class, race, or disability), especially when such discrimination becomes institutionalised (McGrath, 2012b). Sattinger (2012) argues that inequality is one of the main factors that is directly related to skill mismatch. For example, occupational gender segregation has been historically linked to the socio-cultural impact on education in general. In cultures such as Saudi Arabia, the main role of women is still regarded as solely to take care of her husband and children. As a result, women in such cultures are generally not interested in education, except for obtaining a degree, which makes them more "marriageable" (Bilboe, 2011, p. 259). In addition, women in Saudi Arabia cannot occupy certain jobs such as judges, pilots, or military officers, despite recent developments in women's rights (Bilboe, 2011). For example, the Saudi government reports (2002, 2003) show progress in female-to-male enrolment ratios at different educational levels since the introduction of the first national development plan as part of the post-1970s Saudisation programmes. Nevertheless, progress at the employment level is criticised as being modest (Achoui, 2009) – as mentioned above, the female labour

participation rate in Saudi Arabia is less than 18%, resulting in Saudi Arabia having the largest gender imbalance in labour force participation among G20 countries (Ministry of Labour and Social Development, 2016). Additionally, native Saudi women who seek employment are further challenged by high unemployment rates at 33.1% (Ministry of Labour and Social Development, 2016). Thus, occupational gender segregation is one of the main factors affecting opportunities for women in Saudi Arabia.

Saudi policy-makers appear to be aware of the socio-cultural impact on TVET, as is evident in the vision they are promoting for a socio-cultural framework that encourages entrepreneurship and nurtures creativity among Saudi individuals, society and organisations, while taking into consideration the religious and traditional values of the Saudi people (Achoui, 2009). However, such a vision on its own is insufficient; it is critical that Saudi policy-makers set the guiding policies and activities to address the socio-cultural mindset of Saudi society.

#### 2.4.3.4 Technological aspect

Advancements in information and communication technologies have impacted TVET in several ways. On the one hand, technological advancements and innovations have created novel demands for a more adaptable, innovative, and multi-skilled labour force (Baethge, 2006, cited in Powel and Solga, 2008); on the other hand, the pace of change has strongly challenged the ability to keep vocational knowledge up to date (against obsolescence) (Powel and Solga, 2008). Thus, in order to ensure TVET programmes in Saudi Arabia adeptly prepare students for roles in the knowledge society, it is essential that policy-makers design curricula based on extensive market research and on the cooperation between the education authorities and employment organisations and industries (Mouzakitis, 2010).

#### 2.4.3.5 Legal aspect

The legal environment has a considerable impact on TVET policy-making and its implementation. TVET policy-making is affected by a country's institutional provisions. Governments and educational institutions often collaborate, not only in setting the strategies and plans for TVET provision, but also in policy-making by laying down the necessary laws and regulations that govern TVET within a country. The impact on TVET is not only by institutional

provisions within each country but also at the level of regions (Brockmann *et al.*, 2008; Powel and Solga, 2008). For example, Powel and Solga (2008) argue that the Copenhagen and Bologna processes have impacted TVET policy-making in the EU. The Bologna Declaration (1999) aimed at establishing a higher education area in Europe in order to "facilitate individual mobility, qualification transparency and recognition, coordinated national quality assurance systems, as well as mutual recognition of duration and degrees of study courses" (Powel and Solga, 2008, p. 2). This was followed by the Copenhagen Declaration (2002), which aimed at enhancing cooperation among 31 European states in TVET, through a "unitary framework of qualifications and competencies, a system of TVET credit transfer, common quality criteria and principles as well as improvements in citizens' access to lifelong learning" (Powel and Solga, 2008, p. 2). Additionally, Brockmann *et al.* (2008) argue that the European Qualifications Framework has been "chief among policy instruments to establish transparency and comparability of qualifications in order to improve the mobility of labour and, in combination with the European Credit Transfer System for Vocational Education and Training (ECVET), the transferability between vocational education and training (TVET) systems" (Brockmann *et al.*, 2008, p. 228).

In the Gulf region, there have been similar regional collaborative declarations, such as the Doha Declaration (2008) and the Riyadh forum (2010). The Doha Declaration (2008) stresses that human resources are considered the most precious and valuable assets that the GCC countries possess and that the realisation of decent work for all is key. Hence human development in line with national strategies and inclusive social policies is a critical priority for GCC countries. This includes gender equality and women's empowerment, not only as a fundamental value, an issue of justice, and a basic human right, but also as an integral part of economic growth and poverty reduction in these countries (Alzamil, 2014).

In addition, TVET policy-making is impacted by broader normative influences, such as cross-national progress-oriented rankings and global standardisation (Powel and Solga, 2008).

#### 2.4.3.6 Impacts of external environment on TVET policy-making

The discussion above of the various factors that potentially impact on TVET and its success shows that the TVET environment in each country is unique. Accordingly, it is critical for each country to consider the context in which TVET is to operate (from political, economic, socio-

cultural, technological, and legal perspectives), in order to devise suitable and effective TVET policies (Powel and Solga, 2008). Powel and Solga (2008) argue that national policies are increasingly different from one country to another, influenced by differences in expectations, values, and structures. As a result, countries that have previously tried to adapt their TVET models to specific models that have been shown to be successful, such as the German dual model, by copy-and-paste approaches of transferring entire policies and measures have not been successful, because systems like that in Germany are the result of long historical processes that led to the establishment of specific institutional and economic structures which cannot be easily replicated in other countries (Grossmann and Naanda, 2006). Nevertheless, it is useful for policy-makers to learn from the experiences of other countries (from political, economic, socio-cultural, technological, and legal perspectives). Therefore, the next section will discuss the TVET experiences in some selected countries from different regions.

These findings could help Saudi Arabia in devising strategies for reforming and developing human capital in general and TVET in particular. In Saudi Arabia, for example, policy-makers are yet to develop a comprehensive strategy and framework for TVET in their response to the skills mismatch problem in the country, despite the government's vision that emphasises the critical importance of developing human capital and raising standards of technical and scientific education (Achoui, 2009).

## 2.5 Initiatives to strengthen TVET and address skills mismatch

This section explores lessons learned from different countries in using TVET to address skills mismatch and unemployment, including TVET initiatives in Anglo-Saxon countries (e.g. USA, UK), South-East Asia (e.g. Japan) market model, Europe (e.g. Germany) co-operative model, and (e.g. Sweden) schooling model.

### 2.5.1 Market model

#### 2.5.1.1 The US

In the US, TVET has traditionally been referred to as vocational and technical education (VTE), and has been formally part of the US educational system for around a century since the Smith-Hughes Act to approve funding for TVET programmes was passed in 1917 (Zirkle and Martin, 2012). However, TVET in the US has been facing challenges at the social, pedagogical, and financial levels. Nevertheless, policy-makers, TVET institutions, and educators in the US have managed to create opportunities for improvement in relation to the issues that have presented challenges to TVET for many years.

Firstly, at the social level, one of the main challenges facing TVET in the US is the public perception of TVET as a second-class education. According to a broad range of stakeholders, including students, educators, parents, and policy-makers, the public perception of TVET is that it is for those students who cannot achieve an academic degree (Zirkle and Martin, 2012). This also applies to society's perception of TVET teachers. Policy-makers in the US have been introducing new strategies and measures to tackle these societal problems. One such measure has been to strengthen the rigour of CTE curricula and create pathways to post-secondary education. Moreover, research and data on outcomes of CTE students have been key in convincing policy-makers of the value of CTE (American Institutes for Research, 2013). For example, data from the US Department of Education demonstrates that those who concentrate in CTE classes in high school are more likely to graduate from high school: 90% earned their diploma in the 2007-2008 school year, compared with about 75%over all. And nearly 80% of those students enrol in post-secondary education within two years of high school graduation (Butrymowicz, 2012). Additionally, TVET has been made more readily accessible to high school students; although TVET is an elective in the US (i.e. it is not a requirement for getting a school diploma and/or a university degree) (Zirkle and Martin, 2012),

96% of all high school students in the US take at least one TVET course at some stage during their school education (Levesque *et al.*, 2008). This has arguably created better awareness among students, as well as society in general, of TVET, and hence has helped change societal perceptions and attitudes towards TVET. Another measure taken by US policy-makers is re-labelling the term TVET to become Career and Technical Education (CTE), which is thought to be more positively perceived among students, educators, parents, and policy-makers (Zirkle and Martin, 2012). However, it was not simply the name change that instigated the change in mentality towards TVET; rather, and more importantly, it was the success of TVET graduates at work that enabled the change in society.

Secondly, at the pedagogical level, there are challenges related to the curriculum and to educators. The challenges related to the curriculum are mainly due to a lack of an overarching, consistent vision, and strategy (Zirkle and Martin, 2012). For example, continually changing requirements for graduation have made it difficult for students to complete a TVET qualification; as a result, many schools have had to discontinue their TVET programmes (Zirkle and Martin, 2012). In addition, the profession of TVET teaching has increasingly attracted less qualified teachers: as many as half of TVET teachers quit within their first five years (Jalongo and Heider, 2006). Moreover, US policy-makers have been unsuccessful in their attempts at regulating standards for skills (Bailey and Berg, 2010). On the positive side, however, policy-makers have taken measures to ensure TVET is guided by market needs and remains relevant to the business environment by making the TVET experience oriented towards the needs of the surrounding communities (Bailey and Berg, 2010). For example, in urban areas TVET courses are more business- and health-oriented, whereas in rural areas they are more agriculture-oriented (Zirkle and Martin, 2012). In addition, the US has widely adopted apprenticeship programmes – a "combination of on-the-job training and related classroom instruction that provide workers with the practical and theoretical aspects of a highly skilled occupation" (Zirkle and Martin, 2012). Apprenticeship programmes currently serve around 500,000 apprentices across the states within more than 28,000 apprenticeship programmes (Zirkle and Martin, 2012).

Thirdly, at the financial level, there are challenges related to funding of TVET programmes, which are heavily dependent on the US government (federal, state and local) (Zirkle and Martin, 2012). Recognising the critical importance of continuing education (including TVET) for employment and hence the economy, the US created job corps centres to help young people

who, for whatever reason, do not have the opportunity to continue their education, which offer career development and training opportunities through both TVET and academic programmes (Zirkle and Martin, 2012). However, these programmes (particularly the TVET programmes) are highly technical and hence heavily dependent on technology, which limits the programmes due to lack of funding for equipment and teachers (Jalongo and Heider, 2006; Zirkle and Martin, 2012). Unless the private sector engages more in financing TVET programmes (through, for example, donations of equipment and material, sponsorship of TVET institutions and teachers, and provision of internship and apprenticeship opportunities), the appeal of these programmes to students and teachers will arguably remain limited.

#### 2.5.1.2 The UK

The UK has a devolved system of governance for education and training, meaning that skills policy is delegated to the nations of the UK. Although each nation has its own skills strategy, there are common themes across the nations (Green and Hogarth, 2016). The TVET system in the UK has undergone numerous policy changes over the years, with successive governments of all political persuasions attempting to enhance the skills system to fill skills gaps, boost productivity, and address issues related to the perceived poor quality of vocational education and entrenched views that academic routes are superior (City and Guilds Group, 2016). According to the City and Guilds' *Sense and Instability* (2016) report, frequent changes to government policy and personnel in the last 30 years have left an inconsistent education strategy, with a highly fragmented, complex, and unstable TVET system (City and Guilds Group, 2016).

Since the 1970s, policy changes have oscillated between centralised state control and attempts at marketisation of TVET provision in the face of various market failures (Green *et al.*, 2017). During the 1980s and early 1990s, the emphasis of public policy was on creating an external market for TVET and ensuring it consisted of sufficient training providers and learners. During this period, skills policies focused highly on boosting the supply of skills to increase global competitiveness and productivity growth, and on improving social inclusion and mobility (Green and Hogarth, 2016). This was achieved by opening up the market for provision of training to the private sector; thereby creating a voluntarist system whereby it was left to employers to train staff. A system of National Vocational Qualifications (NVQs) was introduced

that was designed to act as a comparable and recognised standard between industries to demonstrate competency-based qualifications specific to each occupation (Page and Hillage, 2006). This market-led approach contrasted with the more interventionist training policy across continental Europe (Page and Hillage, 2006).

From the late 1990s, the policy focus shifted towards a demand-side TVET system in recognition that a supply-side focus is insufficient, considering that skills are a derived demand, and there is consequently a need for greater links between business development and skills (Green *et al.*, 2017; Green and Hogarth, 2016). In 2006, the *Leitch Review of Skills* addressed the UK's long-term skills needs, warning that the current system would leave the UK far behind other OECD countries, such as Germany and France, by 2020 (CIPD, 2017b); it thus set ambitious targets for skills improvement. The *Leitch Review* emphasised the need for a demand-led, adaptable and responsive TVET system based on shared responsibility between employers, individuals, and government, rather than funding being fully met by the state; better integration of employment and skills; increased employer engagement and investment; and the need to raise people's awareness of the value of skills (Henderson-Morrow, 2013). However, in 2010 the coalition government abolished the Leitch targets and created its own strategy, switching the emphasis to apprenticeships. Many principles of Leitch were retained, especially concerning greater employer engagement and participation, the sharing of funding responsibility, and the commitments to improve basic skills and qualifications (CIPD, 2017b). The coalition and subsequent Conservative governments embarked on a series of reforms to improve the quality and number of apprenticeships (CIPD, 2017b). More than 480,000 apprentices started in 2012 in every industrial sector from agriculture to IT and management to retail. These were offered at various levels (Intermediate, Advanced, and Higher in England, Wales and Northern Ireland) and required a certain level of ability and formal qualification (typically NVQs). The majority of these apprenticeships were aimed at 16- to 24-year olds and provided a combination of paid employment and formal learning (usually part time at a local Further Education (FE) colleges). Apprenticeships were also available for those aged 25 and over, yet these were not government funded (British Council and UKTI, 2012). Following a series of reports (the *Wolf Review* in 2011 and the *Richard Review* in 2012) that criticised the UK's TVET as an incoherent mishmash of vocational, general, and academic studies with poor education and employment outcomes, in 2016 the UK government set out a new plan to reform TVET – the Post-16 Skills Plan. This plan aims to simplify the system, improve the alignment of technical education routes with academic options, and reverse the blurring of

academic, general, and vocational education, which has been a major trend in the UK (City and Guilds Group, 2016). Alongside the well-established academic route, the new technical route will offer a "T-level" programme taught full-time in a college over two years, with time spent on work placements. Graduates will receive a T-level certificate, having followed an employment-based technical education, such as an apprenticeship, expected to last a minimum of one year, and including at least 20% college-based education (Department for Education, 2017). Moreover, the plan involves streamlining an estimated 13,000 technical qualifications down to just 15 routes that group occupations with shared requirements. Additionally, the plan expands the remit of the Institute for Apprenticeships to oversee the framework and become the principal body responsible for technical education. In line with the demand-led approach, the plan proposes that employers, together with education experts, advise the Institute for Apprenticeships on the knowledge and skills required to meet occupational standards in each of the 15 suggested routes (City and Guilds Group, 2016).

In essence, the government's Post-16 Skills Plan to bring together full-time technical FE and apprenticeships could provide a sustainable long-term model for the UK. However, there is concern that the removal of existing qualifications will limit choices for students. Moreover, the failure to learn from past mistakes and the lack of organisational memory at political and official levels remain significant challenges to policy-making in the UK (City and Guilds Group, 2016).

#### 2.5.1.3 Japan

TVET in Japan has faced different types of challenges than in the US, particularly at the practical and pedagogical levels. Yet, policy-makers in Japan have managed to create opportunities for improvement in relation to the issues that presented challenges to TVET for generations.

Firstly, at the practical level, one of the main challenges facing TVET in Japan was the link between TVET and company training. For generations, Japan had adopted a singular model for TVET (like that in the UK), whereby TVET is separated from in-company training (Terada, 2012).

However, Japan's policy-makers realised that a lack of connection between TVET and organisations was preventing TVET from reaching its full potential. Accordingly, they introduced a dual TVET model (similar to the German dual model) in 2003 – referred to as practicum – in collaboration with Japan's Ministry of Education, Culture, Sports, Science and Technology and Ministry of Health, Labour and Welfare (Terada, 2012). Practicum is organised largely between TVET schools and organisations (especially within the local areas) in about 20 regions (Terada, 2012). Coordination between TVET schools and organisations has arguably reduced the gap between education in TVET schools and the skills needed in the job market, and hence has led to the better development of the knowledge, skills, and attitudes required for a particular vocational career (Terada, 2012). Nevertheless, it is important to take into account the different culture of the Japanese people. Japanese educational models are generally inspired by the spirit of the nation and influenced by the social community and the needs of the family, rather than being a mere copy of educational models used in other countries, however successful.

Secondly, at the pedagogical level, there are challenges related to the curriculum, as is the case in the US. The educational system in Japan was divided mainly between general high school and vocational high school, with few (around 5%) comprehensive schools incorporating both general and vocational curricula (Terada, 2012). Terada (2012) argues the need for a more flexible pedagogical system that enables students in all high schools in Japan to select vocational subjects.

### 2.5.2 Cooperative model

#### 2.5.2.1 Germany

TVET in Germany has faced challenges similar to those in Japan, particularly at the practical and pedagogical levels.

TVET experienced political and legal challenges related to the concept of "competence" and its realisation nationwide. For example, Nehls (2008, cited in Deißinger, 2012) highlights the dangers of having random learning objectives instead of a well-aligned system that mediates between competence and employability within the national context. However, German

policy-makers – among other stakeholders – still put more emphasis on the established structures of the TVET system, in accordance with EU terminology, rather than on the needs of the constantly changing local labour market, a point criticised by Deißinger (2012). In order to have a TVET system that works in practice, it is critical that the system enables trainees to develop competences that are relevant and dynamic in a constantly changing labour market (Nehls 2008, cited in Deißinger, 2012).

The first step policy-makers in Germany took towards addressing this challenge was to develop a clear understanding, and definition, of the concept of "competence" – a challenge that has been experienced in other countries, including the UK (Deißinger, 2012). However, although the concept of "competence" may seem universal, defining the term differs between countries, as it should take into consideration the context of the country. Policy-makers in Germany created a "competence matrix" with vertical differentiation at reference levels (there are eight reference levels in total) and the horizontal differentiation with respect to competence dimensions (there are a total of four competence dimensions: technical competence, methodical competence, social competence, and personal Competence) (Deißinger, 2012). National TVET frameworks should support lifelong learning that is of value to the trainees as well as to organisations and nations (Keating, 2008).

### 2.5.3 Schooling model

#### 2.5.3.1 Sweden

TVET in Sweden provides an example of a school-based, state-regulated model in which TVET is embedded in the education system. Swedish institutions include TVET as part of an educational philosophy that stresses equity, integration, and comprehensiveness (Andersson, 2000). By the late 1960s, vocational education in schools had gradually become the dominant path to vocation in Sweden, pushing aside workplace learning and apprenticeships. This formed the start of a comprehensive model of education that emphasises active citizenship, work–life orientation, and preparation for further studies (Thunqvist and Hallqvist, 2014). Indeed, the Swedish education system not only focuses on imparting knowledge, but also on cultivating students' personal development and engagement with society (Thunqvist and Hallqvist, 2014).

The education system in Sweden consists of compulsory schooling up to the age of 16, after which students choose to continue to upper secondary school, which is a parallel system comprising two tracks: academic or vocational. The main aim of academic programmes is to prepare students for higher education, while the vocational track is geared towards direct training for the labour market with the majority of training taking place in a school setting. Those not eligible for vocational or academic tracks have the option of enrolling in non-qualifying tracks to prepare for the vocational or academic track or for the labour market (Rudolphi, 2014).

Since the 1990s, the Swedish TVET system has been subject to several reforms, with the reduction of educational inequalities between vocational and mainstream education tracks being a recurrent subject on the political agenda (Rudolphi, 2014). The radical reform of the upper secondary vocational system in 1991 resulted in the decentralisation of state governance to municipalities and the marketisation of the system as privately run, state-funded schools were no longer allowed; consequently, individual choice was increased (Rudolphi, 2014; Thunqvist and Hallqvist, 2014). Measures included extending programmes from two to three years and introducing more academic-oriented subjects to reach parity with general programmes (OECD, 2016b).

Despite these reforms, dropout rates remained high and the system proved to be inflexible, with poor cooperation between schools, employers, and labour-market institutions. This led to renewed reforms in 2011 (GY-11) that increased vocational content, thereby reducing links to higher education, and reintroduced apprenticeships to strengthen links to the labour market. GY-11 resulted in the creation of a modified system with three main orientations: (i) general education; (ii) school-based vocational programmes; (iii) workplace-based apprenticeships (Thunqvist, 2015). These reforms marked a radical break in the fundamental principles of the Swedish upper secondary education model of citizenship, with democracy and equality being replaced by a narrative concerning employability and efficiency (Thunqvist, 2015). A main criticism of GY-11 was that the stronger division between different educational programmes would reinforce the social division of labour (Thunqvist, 2015).

Despite these reforms, TVET in Sweden suffers from declining student enrolment and a decline in esteem and attractiveness among the youth (Thunqvist, 2015). In particular, the new apprenticeship tracks did not develop as expected, perhaps due to the time needed to modify

the image of apprenticeship, which has been positioned in the educational debate as the track for non-academic students, thereby contributing to its negative image and low prestige (Thunqvist, 2015). Moreover, there is a lack of standardisation in the apprenticeship programmes as schools are responsible for their design and organisation; thus, they vary substantially across locations. As a result, employers are insecure about the skills mastered by apprentices, dampening the labour-market prospects of graduates and making the apprenticeship track less attractive for youth (OECD, 2016b).

## 2.6 Emerging key concepts

From the literature, it is evident that the global labour market is undergoing major changes due to technological innovations, globalisation, intensified competition in world markets, and demographic trends. These trends have considerably modified the demand for skills, with the labour market increasingly requiring high-level cognitive and interpersonal skills. This has arguably led to endemic skill shortages and mismatches throughout the world – on average, 40% of employers report difficulties in hiring adequately skilled workers or claim that employees are poorly prepared for the tasks they face. Moreover, one in four employees in developed countries believe they are overqualified for their role, while 16% claim to be underqualified, and 40% of graduates are working in areas outside their field of study. The skills mismatch phenomenon gives rise to aggregate loss in human capital investment and productivity, as well as significant economic and well-being costs to individuals and corporations, and this manifests as an economy that is operating below its potential, with high structural unemployment and reduced GDP growth.

In particular, skills mismatches disproportionately impact youth, since inadequate skills are often the result of inefficiencies in education and training systems that fail to establish synergies with industry. This results in the inability of education and training to adapt their skills provision to labour market changes (Barrientos and Majumdar, 2015). Indeed, skills mismatches contribute to longstanding structural barriers that prevent young people from effectively transitioning from school to work, which are reflected in persistent high levels of youth unemployment in many countries.

The direct link between skills mismatch and youth unemployment is of particular significance to Saudi Arabia, which has the second youngest labour force in the world, as well as the highest level of growth, and yet is persistently plagued by one of the highest rates of indigenous youth unemployment. Indeed, Saudi Arabia suffers from numerous complex, longstanding challenges that have resulted in a highly distorted labour market. Significantly, the workforce participation rate of Saudi women is among the lowest in the GCC region, as Islamic teachings reinforce gender discrimination and result in numerous cultural and organisational structural barriers to the advancement of women in the labour market. Such obstacles include limited job and career-advancement opportunities for women, lack of

mobility, excessive workload due to the lack of work–family balance, incompatible working environments, and gender stereotypes and discrimination in the workplace.

Moreover, two-thirds of employed nationals work in an over-crowded and highly saturated public sector that can no longer absorb the influx of labour. On the other hand, the growing private sector is dominated (83%) by expatriate workers. This segmentation is the result of a combination of socio-economic dynamics, including wage disparities between Saudi nationals and migrant labourers, Saudi nationals' aversion towards private-sector work and, in particular, blue-collar jobs, and, importantly, a disparity between the skills and qualification levels of nationals and the demands of private-sector industries.

The last point indicates that Saudi youth unemployment is partly the consequence of skills mismatch, which is corroborated by studies that have found that 46% of Saudi job seekers cited difficulties in securing jobs with their current skill-set, while 58% of employers acknowledged the existence of severe skills gaps and shortages associated with indigenous workers' lack of work ethics, specialised knowledge, and generic skills. Importantly, it was revealed that the main reason for the skills mismatch between supply and demand in Saudi Arabia is its insufficiently developed education and training system that has inadequate coordination between business and education and is thus not responsive to the needs of the labour market.

The literature demonstrates that, if developed adequately, TVET can provide a solution to skills mismatch by equipping individuals with the essential knowledge and skills demanded and expected by the labour market. However, studies on well-advanced TVET systems in leading world economies indicate that, in order to be effective at overcoming skills mismatch, several demanding preconditions are necessary. One key element of success is the systematic involvement of stakeholders, including the government, the education sector, social partners, industry, and youth. It is equally essential to have one oversight body that aligns the interests of all participating actors. Additionally, incentive-based funding has been shown to be an effective tool for driving the quality of TVET. Finally, the social acceptance of TVET as having parity with general academic education is a critical component to ensure vocational training does not get neglected by policy-makers and become victim to a self-reinforcing downward trend. Considering the complexity of solving skill mismatches, where several policy fields are involved, it is essential to implement a well-functioning system of evaluation.

From this follows the notion that reforming the TVET system in the KSA could potentially be instrumental in significantly reducing youth unemployment, thereby enabling the Kingdom to reach its full potential. Indeed, in 2016, Saudi Arabia laid out its new growth strategy – Vision 2030 and the National Transformation Programme – for transitioning its economy away from an over-reliance on oil to a more balanced, investment-based model. A critical part of this transformation is an ambitious plan for education reform that involves challenging all elements of the system to improve on historical performance and to prepare the country's workforce for a diversified and knowledge-based economy. With regards to the TVET arm of education, it is vital that such reform addresses the systematic issues facing the sector and finds mechanisms to connect TVET more directly to the needs and requirements of industry. Due to the complexity of such reforming aims, it is best for Saudi Arabia to draw lessons from the experience and best practice of other countries with highly developed TVET systems.

At the core of Saudi Arabia's development framework is the need to redefine how TVET should be organised, implemented, and monitored to strengthen its role as a viable solution to unpredictable market phenomena and to serve as a sustainable lifelong learning platform. For example, the fundamental objective of TVET in the Kingdom needs to be addressed – is the goal to provide a short- or long-term policy strategy? Moreover, mechanisms must be put in place to properly assess the quality and quantity of TVET outcomes, thereby enabling the evaluation of how responsive TVET is to the needs of the labour market.

The focus of this report is to address these concepts by providing greater insight on Saudi Arabia's TVET national policy context, labour-market characteristics, the degree to which TVET outputs address the needs of the labour market, the socio-cultural context, and other national contextual conditions that impact on the effectiveness of TVET in the Kingdom.

# 3 Research Design and Methodology

## 3.1 Introduction

Chapter two was aimed at reviewing the literature on Technical and Vocational Education and Training (TVET). The chapter started by discussing the socio-economic impacts of skills mismatch, defining the challenge of skills mismatch and highlighting the skills gap between supply and demand. It then moved into a discussion of the perceived role of TVET in addressing the skills mismatch and unemployment. Further, the trends, issues, and debates surrounding TVET were then reviewed, highlighting the main theoretical trends and the relevant PESTLE issues impacting policy making, particularly in the KSA. The chapter then delved into reviewing some TVET initiatives in different countries (Anglo-Saxon, Europe and South East Asia). Finally, some key concepts emerging from the literature were discussed, including the existence of a research gap to which this study makes a contribution.

This chapter develops a methodological framework that will help address the research objectives in order to offer a richer appreciation of the potentiality of TVET in addressing skills mismatch and unemployment. A research methodology or design, is in this context understood as:

> the specifications of methods and procedures for acquiring the information needed. It is the overall operational pattern or framework of the project that stipulates what information is to be collected from which sources by what procedures. If it is a good design, it will ensure that the information obtained is relevant to the research questions and that it was collected by objective and economical procedures (Green and Tull, 1970, cited in Emory, 1976, p. 77).

The research methodology, conceived properly, serves, firstly, as a *plan* that specifies the sources and types of information relevant to the research question. Secondly, it is a strategy or blueprint specifying which approach will be used for gathering and analysing the data (Emory and Cooper, 2003). Thus, the research methodology is essentially "a plan, structure, and strategy of investigation so conceived as to obtain answers to research questions or problems" (Kerlinger, 1986, p. 279). According to Creswell and Creswell (2017), the underlying principle in any design of a methodological framework is that the research strategy or strategies and the method or techniques employed, must be appropriate in order to address the research objectives. As detailed in section 1.3, the research objectives are: to develop an

understanding of the causes of unemployment in KSA; to understand the relationship between skills mismatch and unemployment in KSA; to understand the current and potential role of TVET systems in addressing the skills mismatch by developing skills among the indigenous Saudi workforce; to explore and describe the current and potential contribution of TVET initiatives to influencing employment and overcoming socio-economic and cultural issues; and, to provide an understanding of the perspectives of stakeholders within key sectors of the KSA labour market, in relation to the current and potential role of TVET systems, strategies and policies in the future. Thus, the formulated research methodology should be appropriate to address these research objectives.

Further, in undertaking any research, it is imperative that the philosophical orientation of the research is put into perspective and the underlying implications that this has on the research design outlined (Collis and Hussey, 2013; Creswell and Creswell, 2017; Silverman, 2016) in order to articulate and justify the methodology. The importance of highlighting the philosophical orientation of this research is that it provides a rationale for the methodological framework that will guide this research. Saunders *et al*. (2012) conceptualises the development of a methodological framework by highlighting the different choices in the research process (see figure 3.1). This has guided the development of the methodological framework for this research.

The chapter proceeds as follows:
Section 3.2 – Research philosophy and approach, discusses the ontological and epistemological assumptions underlying this research. Also, the research approach is discussed. Section 3.3, discusses the research strategy which is implicated by the philosophical assumptions. Section 3.4 – Data collection instruments, discusses the research choices, which are influenced by the philosophical assumptions and research strategy. Section 3.5, discusses how the collected data has been analysed. In Section 3.6, discusses the ethical considerations for the research, including the research validity and reliability. Finally, Section 3.7 highlights the limitations of the adopted methodology and summarizes the chapter.

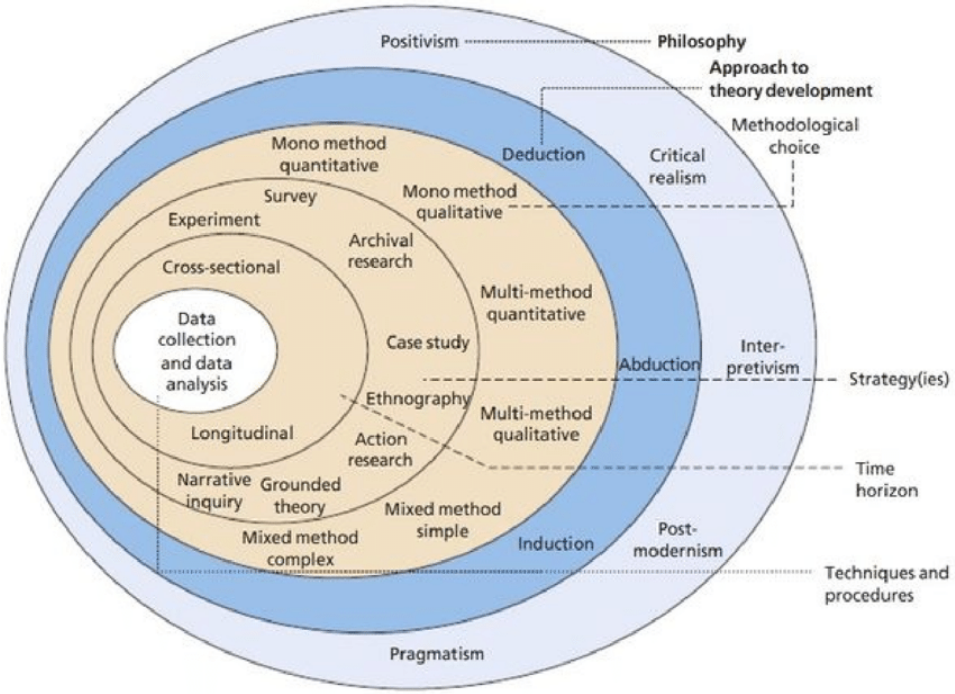



***Figure 3.1: The research process – methodological choices***

*Source: Saunders et al., 2016*

## 3.2 Research philosophy and approach

Outlining the research philosophy is important as it reflects the way the researcher thinks about the development of knowledge which consequently affects the way one goes about doing the research (Saunders *et al*., 2012). Easterby-Smith *et al*. (2002, p. 27) states that an understanding of the philosophical issues is very useful:

> First, since it can help to clarify research designs. Second, knowledge of philosophy can help the researcher to recognise which designs will work and which will not. It should enable a researcher to avoid going up too many blind alleys and should indicate the limitations of particular approaches. Third, knowledge of philosophy can help the researcher identify, and even create, designs that may be outside his or her past experience. And it may also suggest how to adapt research designs according to the constraints of different subject of knowledge structures

The philosophical issues relate to ontological and epistemological standpoints as any research "brings with it a set of assumptions about the social world it investigates". Ontology refers to the "science or study of being" (Blaikie, 2010, p. 40), which deals with the nature of reality (Saunders *et al.,* 2016). The basic ontological question is "whether the 'reality' to be explored is external to the individual, imposing itself on individual consciousness from without, or the product of individual consciousness; whether 'reality' is of an 'objective' nature, or the product of individual cognition; whether 'reality' is a given 'out there' in the world, or the creation of one's mind" (Burrell and Morgan, 2005, p. 5). Epistemology, on the other hand, is the philosophy of knowledge of how one comes to know (Trochim, 2005). It is concerned with "the nature of knowledge, its possibility, scope and general basis" (Hamlyn, 1995, p. 242) and "answers questions about how one can be a 'knower'; what tests beliefs must pass in order to be legitimated as knowledge; and what kind of things can be known" (Harding, 1987, p. 3).

This study's ontological and epistemological standpoints are underpinned in the 'critical realism' philosophical framework (Ackroyd and Fleetwood, 2001; Bhaskar, 2016; Saunders *et al*., 2016; Sayer, 2000). The ontological position is that reality, though objective is highly complex because of the existence of often hidden 'generative mechanisms' that "combine to generate the flux of phenomena that constitute the actual states and happenings of the world" (Bhaskar, 1978, p. 47). These generative mechanisms or causal powers operate to

determine substantive outcomes and processes (Hannon, 2005). According to critical realism, "what is initially experienced through senses is subsequently processed subjectively by the mind. For the critical realist researcher this means that there is a need to find out both what is immediately experienced and the structures and relationships that lie beneath this; in other words to consider the underlying complexity" (Saunders and Tosey, 2013, p. 58).

Epistemologically, critical realism posits that there is need to go deep into understanding these generative mechanisms (or the structures and mechanism) that govern the flux of events (Bhaskar, 2016; Fleetwood, 2014). Thus, knowledge essentially derives from understanding these 'deep' structures and mechanism, not necessarily the patterns in the flux of events as posited by positivism. In this respect, critical realism requires a deep understanding of any social situation (in this study, skills mismatch and employment), which means going beyond the observable (which positivism contends) to investigating the mechanism behind that situation. Further, critical realism also rejects the existence of multiple realities as postulated by interpretivism (Mingers, 2014; Smith and Elger, 2014), advancing that "reality is not the kind of thing that there can be more than one of. There is only one reality although, importantly, there often are several discourses (etc.) that act as interpretations of it" (Fleetwood, 2014, p. 208).

As a result of the need to obtain a deeper understanding of social structures, "the collection techniques and analysis procedure are varied utilising either or both quantitative and qualitative data" (Saunders and Tosey, 2013, p. 58). Thus, critical realists can justifiably adopt either a 'deductive' or 'inductive' data collection techniques and methodological approaches or a combination to examine a particular issue at hand. In this study, an orientation towards more inductive data collection techniques is adopted (see section 3.3 below). Further, with respect to the relevance of theory in critical realism, the development of theory is perceived as an ongoing process that involves continuous refinement and improvement in the quest for the finest or most precise theory possible (Hannon, 2005). The focus of theory is also on ex-post explanations, as opposed to ex-ante predictions (Fleetwood, 2014).

The appropriateness of critical realism to this research lies in its emphasis on the need to understanding the deep structures and mechanism that contribute to TVET, unemployment and skills mismatch in the context of KSA. The theoretical lenses that critical realism offers thus, go beyond the obviously observable cases of skills mismatch and employment, to the

hidden or obscured material substrate of the structures and mechanisms that seem to sustain these. In this respect, understanding the socio-economic impacts, the trends, issues and debates and initiatives around the world, as discussed in Chapter two, forms an important step to this deeper understanding that this study seeks.

## 3.3 Research strategy

In order to gain a deeper understanding, from a critical realist perspective, of the skills mismatch and unemployment and the role of TVET, a case study approach is adopted. Robson (2002, p. 178) defines case study as a "strategy for doing research which involves an investigation of a particular contemporary phenomenon within its real-life context using multiple sources of evidence". In this respect, Stake (2000) argues that case study approach is of special interest as it is used to look for the detail of interaction within its contexts to provide an understanding of a particular circumstance. In this case, the study seeks to understand the role of TVET in addressing skills mismatch and unemployment, using the case of the Kingdom of Saudi Arabia in order to give a better context. As Stake (2000) argues, a particular case is selected to serve the crucial purpose of facilitating an understanding of the phenomenon of interest for transformation of the society. The context of Saudi Arabia is appropriate as the existence of skills mismatch and unemployment has been recognised with government formulating and implementing different strategies (such as 'Nitaqat' as part of the Saudization programme) in an attempt to address the problem. From a critical realist perspective, change and transformation in societies requires an identification and exposure of the underlying constraints and hindrances to a social phenomenon (Fleetwood, 2014). This is imperative to the understanding of the causal powers that are active in a given situation or context for the initiation and production of change (Sayer, 2004). As such, studying a social phenomenon within its context offers some emancipatory potential (Bhaskar, 1979). From a critical realist perspective, the identification of forces underlying skills mismatch and unemployment is an important step towards instituting change (Sayer, 2004). Thus, this study is interested in investigating the relationship between skills mismatch and unemployment and the role TVET system could play in this relationship.

Yin (2013) argues that case study strategy is useful when 'how' or 'why' questions are being posed, and when the researcher has little control over the events and when the focus is on a contemporary phenomenon within some real-life context. This is relevant in this context as the study seeks to answer questions such as 'how is the unemployment in Saudi Arabia related to skills mismatch?' and 'what are the roles of TVET systems, strategies and policies in developing skills and addressing skills mismatch?'. Further, case studies are perceived as constituting a "comprehensive research strategy" that embodies "the logic of design, data collection

techniques and specific approaches to data analysis" (Yin, 2003, p. 14). Case study research can be completed in a multitude of different ways such as investigation of either one or multiple cases (Miles et al., 2013). A case study strategy is therefore adopted as it offers a richer understanding of the contributory role of skills mismatch in unemployment generation and the remedial role of TVET programmes. Saunders et al. (2012) support in stating that a case study strategy is often used in explanatory and exploratory research. This is relevant in the context of this study as the interest is in finding out "what is happening; seek new insights; to ask questions and to assess phenomena in a new light" (Robson, 2002, p. 59) which makes this strategy appropriate in investigating TVET and skills mismatch in the case of KSA.

Further, the phenomenon of unemployment and skills mismatch are beyond sectorial (industry) boundaries to national (or international) level. As such, a single case (industry) approach would arguably be insufficient to bring about change and transformation in a society. As such, from a critical realism perspective, the focus is on the social phenomenon through taking a more holistic lens involving a multiple case study approach in order to identify or expose the underlying constraints and hindrances (generative mechanisms) of that social phenomenon (Fleetwood, 2014). A multiple case study research can be seen as essential to the understanding of the causal powers that are active in a given situation or context (Sayer, 2004). Darke et al. (1998) argue that a multiple case study approach is useful in newer, less well-developed research areas particularly where investigation of the context and dynamics of a situation are important. The multiple case study approach, from a critical realist perspective, then becomes useful in understanding the 'structures and mechanisms that generate phenomena' (Bhaskar, 1978, p. 25), in this case, skills mismatch and unemployment. Further, Archer (1995) argues that a multiple case study approach is implicit within a critical realist paradigm because of the combined structural perspective and agency perspective (the two components of social life – structure and agency) that are taken to understand the reality of social situations. Thus, for the purpose of studying the skills mismatch, unemployment and the role of TVET in Saudi Arabia so as to uncover causal mechanisms and contextual forces, a multiple case study approach is most appropriate.

## 3.4 Data collection instruments

Case study research can draw on multiple sources of evidence. The main method for data collection in this study is interviews, of the 'semi-structured' as opposed to the 'structured' kind. Interviews offer the research a richer and more detailed account of the phenomena under study, as participants are not restricted by a structured questionnaire or by closed questions (Bryman and Bell, 2015; Robson, 2011; Saunders *et al*., 2012). Thus, Denscombe (2014, p. 165) argues that interviews are ideally suited to the collection of detailed information and the achievement of an in-depth insight into particular topics, as well as for data collection on 'sensitive issues'. Semi-structured interviews maintain focus by defining the desired areas of discussion using open-ended questions. Interviewees are given scope to express their views and perspectives openly, and the research may follow lines of enquiry in order to probe these views and gain more information. By using a pre-defined interview structure to guide the direction of the interview, with a set of themes and questions to be covered, the research can ensure consistency in the topics discussed and can make sure that each participant is given the same opportunity to express their views on the relevant topics. This method allows the research to achieve better insight into the views of the different target groups on the relationship between unemployment and skills, TVET as a potential solution for unemployment, TVET strategies currently adopted in Saudi Arabia, the ways to improve TVET systems, strategies and policies. Saunders *et al.* (2012, p. 244) describe semi-structured interviews and situations, like in this study, where they are most appropriate, as follows;

> the researcher will have a list of themes and questions to be covered although these may vary from interview to interview. This means that you may omit some questions in particular interviews, given the specific organisational context, which is encountered in relation to the research topic. The order of questions may also be varied depending on the flow of conversation. On the other hand, additional questions may be required to explore your research question and objectives given the nature of events within particular organisations. The nature of questions and the ensuing discussion mean that data will be recorded by note taking or perhaps by tape recording the conversation

Despite their advantages, interviews, however, have the disadvantage of being more prone to researcher bias than other data collection methods, and hence may be criticised for their reliability as a data collection method (Robson, 2011; Saunders *et al.*, 2012). It is therefore

important for the researcher to consider their own bias and to maintain a professional and consistent manner when questioning interviewees. The use of an interview structure or guide helps to ensure this consistency, and potential problems of researcher bias are mitigated by the chosen analysis method, as it is data-driven and not guided by pre-existing theories or assumptions. Reliability and researcher bias issues are addressed in this research by using a systematic data collection approach through using an interview schedule. The systematic data collection is followed by a structured data analysis (see section 3.5) of thematic analysis method (Braun and Clarke, 2006).

When developing the interview schedule and deciding on the interview questions, a small pilot study was conducted (see section 3.4.2). This is considered a good practice in research and has the benefit of assisting the researcher to prepare for the major study. Van Teijlingen and Hundley (2001, p. 1) argue that "one of the advantages of conducting a pilot study is that it might give advance warning about where the main research project could fail, where research protocols may not be followed, or whether proposed methods or instruments are inappropriate or too complicated". This early warning provides enables refinements to be made.

In this pilot study a qualitative questionnaire survey method was used, with open ended questions. Qualitative questionnaire survey enables the researcher to collect evidence from key stakeholders, in a way that is less resource intensive and which can be done via email. For example, in the case of this research it was difficult to reach some of the stakeholders in some organisations due to societal and cultural restrictions in Saudi Arabia. The responses to the pilot questionnaire surveys were used to reduce any ambiguity in the questions and to develop the question structure for the interviews.

Further, in order to complement the semi-structured interview data, qualitative documentary analysis method was also used. Documentation provides an important source of secondary data that is not influenced by personal contact with the researcher (Robson, 2011). However, documentation can be biased and it may be difficult to know the position, objectivity, and possible biases of the contributions from its different authors (Robson, 2011). Therefore, this research used documents that can be traced back to all its authors and to only make use of statistical data or descriptive, non-judgmental, statements and reports. This type of data has been used to provide an overview of the sectors, organisations, initiatives and policies

currently in operation within Saudi Arabia, and to give context for interpreting the primary interview data. This data may also allow for validation of interview responses, especially when figures are being quoted or when initiatives and policies are being described by interview respondents.

### 3.4.1 Research participants

This research aimed to locate, recruit and interview people in organisations and analyse documents that are relevant to the phenomena under study (TVET, unemployment and skills mismatch in Saudi Arabia). Thus, the identification of all organisations involved in TVET, which was through document and online search, formed the first step to the research participant selection process.

The organisations identified are from three key sectors of the KSA economy: the public (governmental) sector, Information and Communication Technology (ICT) sector and tourism sector. While a majority of employed Saudis work in the public sector (Ministry of Labour and Social Development, 2016), the primary focus of interviews with public sector organisations was on identifying and discussing the TVET policies and initiatives undertaken by the Saudi government and its associated agencies. The ICT and tourism sectors were chosen as important private sector industries with different characteristics. In this respect, the ICT sector offers the potential for high tech, stimulating and well-paid jobs whilst the tourism sector has potential for growth and economic diversification offering jobs to all levels of skills. Both ICT and tourism sectors are strategically targeted by the Saudi government as being of great economic importance in the national plans (Ministry of Economics and Planning, 2015; Wang, 2014). Further, in order to improve the richness of the data collected, both national (local or domestic) and international (foreign) companies that provide TVET jobs in the ICT and tourism sectors were targeted. This provides an opportunity for comparing national and international perspectives on TVET related employment in KSA. Also, the regulatory agencies/institutions within each sector were selected to foster understanding of how national TVET policies were implemented and monitored in the respective sectors. As such, the interview organisations types in the ICT and tourism sectors were national (domestic) companies, international (foreign) companies and sector regulators (see figure 3.2).

Key government departments/institutions were identified within the public sector. The selection criteria for the government institutions was that they be directly involved in the TVET programmes and the labour market. These were identified as the Ministry of Labour, Technical Vocational Training Corporation, the Human Resources Development Fund and Ministry of Education. Thus, representatives from each of these government agencies were sought to be participants in this study.

Therefore, from the three sectors therefore, the research participants identified for primary data collection and interviewing included government officials, TVET institution managers, directors within private companies, trainers, trainees and graduate employees. Both formal and informal access channels to the participants were sought. Informal channels were mostly used for the private companies whilst formal channels needed to be followed for the government institutions.

As part of secondary data exploration, and to provide an understanding of the context in which the primary data can be interpreted, publicly available documents are used to present an overview. These documents include statistical reports, strategy and policy reports, news articles and employment figures published by government and private organisations.

Further, unlike quantitative research methodologies such as survey questionnaire, the identification and selection of participants in this study was conceptually driven and not statistically driven (Braun and Clarke, 2006). The researcher employed a snowballing technique (Saunders et al., 2012) with private companies that were easier to access targeted first and then the government institutions. In determining the number of participants, however, what is important is to have a sufficient number of narratives that lead to uncovering the theory, and not simply a specific number of individuals or organisations (Glaser and Strauss, 2017). This is consistent with the thematic analysis method applied which recognises a stage of saturation in which no new and distinct themes arise from additional analysis (see section 3.5.2). The driving aim when increasing the number of participants through using the snowballing technique was to capture sufficient narratives on skills mismatch, unemployment and TVET. As such, perspectives from those involved in these aspects were sought leading to the total of 81 participants.

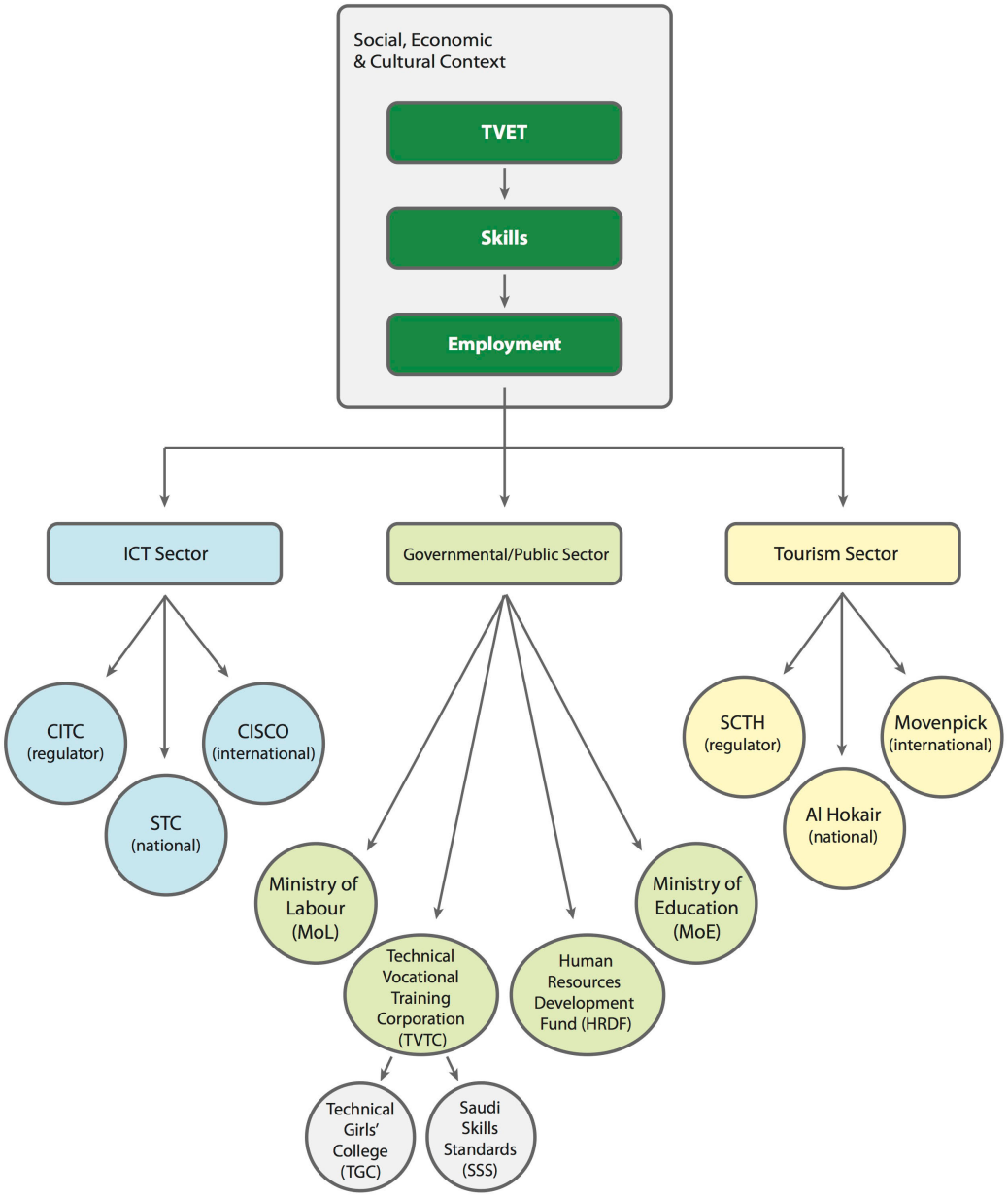



***Figure 3.2: Key labour market sector components***

### 3.4.2 Data collection process

A data collection plan was developed to help guide the data collection process. The process involved preparing contacts, collecting pilot questionnaire data, analysing pilot questionnaire data and developing interview questions, collecting interview data, transcribing interview data and finalising analysing interview data.

Thus, according to the plan, prior to conducting semi-structured interviews, a pilot questionnaire was used to help refine the interview questions and establish the structure for the interview in the main study. In the pilot study, self-completed questionnaires were sent to the identified research participants (see section 3.4.1). The pilot study participants were in different geographical areas of Saudi Arabia. This was important as it could also help to highlight some expected limitations (e.g. due to societal or cultural factors) that exist in accessing participants for the interview stage. As such, for these inaccessible areas mainly due to cultural and societal restrictions, self-filled interview questionnaires were developed. The identified pilot study participants were invited to answer written questions that encompassed the relationship between unemployment and skills, VET as a potential solution for unemployment, VET strategies currently adopted in Saudi Arabia, the roles of different stakeholders and possible ways of improving systems, strategies and policies.

Importantly, the self-completed pilot questionnaires helped to improve the interview questions and therefore, the data collected from the interview participants during the main study. This is important as it enabled the gathering of richer and more detailed account of the phenomena under study during the one-to-one interviews as participants were not restricted with a questionnaire. Further, self-filled interview questionnaires were sent to participants who were difficult to reach in order to interview in person due to socio-cultural restrictions. The analysis of these self-filled interview questionnaires was conducted simultaneously as the completed pilot questionnaires were being returned. Similarly, the transcription and translation of the interviews was done simultaneously with the data collection and conducting of the interviews. Then for the analysis of the interviews, this was planned to start once all interviews had been conducted, translated and transcribed.

When conducting the interviews, interviewees were given the option of having the interview done in Arabic or English. This made the interview process less restrictive through removing the language barrier. The Arabic language, in this case, was important in gaining access to participants and also in establishing trust (Andrews, 1995). In addition, being interviewed in English for some participants could have had a negative impact on their ability to express themselves fully, as well as to feel comfortable and to open up to the researcher (Tsang, 1998). In total, 81 participants were interviewed. Of the 81 interviewees, two interviewees preferred to conduct their interviews entirely in English as Arabic was not their first language. The researcher is a Saudi and therefore no interpreter was needed. This is a key strength as issues surrounding who is the insider and who is the outsider (Welch and Piekkari, 2006) when interpreters are involved did not arise. Further, as a native speaker, this enabled the researcher to pick up on nuances of expression, tone and body language which a non-Saudi researcher might overlook. The interviews conducted in Arabic were transcribed and then translated into English. However, issues of validity arise when foreign transcripts are translated (Kapborg and Berterö, 2002). Thus, in order to improve the research validity, the researcher performed some back translation (Brislin, 1970; Kapborg and Berterö, 2002) on some translated interviews. This involved the translation of the previously translated transcripts into English back into Arabic so as to compare with the original Arabic transcript. An independent expert translator was consulted in this process to increase reliability. The back-translation process was aimed at identifying any significant variations that could have arisen in the translation process. No significant differences arose which provided some assurance on the quality of the translation to the researcher. The interview recordings and notes were then used to transcribe the interviews into English text. The entire data analysis process made use of English language text transcripts.

The analysis of the transcribed interview data was planned and performed using the thematic analysis technique (Braun and Clarke, 2006) (see section 3.5 below). Further, throughout the analysis process, the interview responses have been checked and interpreted whilst making use of secondary data. This is particularly important when interpreting interviewee responses which make reference to employment figures, training figures, policies, systems, organisations and initiative which are described in the secondary data. It is therefore possible to cross reference the understanding of the respondents with objective secondary data.

#### 3.4.2.1 Interview questions

As indicated above, based on the result of the pilot study, the interview questions had been edited and reordered to ensure that all aspects of the research questions are sufficiently addressed and to elicit the most relevant data from interviewees. The researcher made use of a semi-structured interview schedule (see appendix 1), which outlines the resultant 9 key questions, which have been directed at the interviewees. Further, the researcher followed lines of enquiry or sought clarification on these topics as they arose. The following interview questions have been used in the interviews, with each question being modified slightly depending on the stakeholder group being interviewed. These interview stakeholder groups comprise of government officials, TVET institutions, managers and trainers, private sector organisations and VET workers or trainees.

Table 3.1: Interview questions and rationale

| Interview questions |
|---|
| 1. What is your view on the causes of unemployment among Saudis? |
| 2. Is there a relationship between unemployment and skills of Saudis? |
| 3. What is the impact of the existing TVET system on employment among Saudis? |
| 4. What is your view on the role TVET can play in addressing unemployment among Saudis? |
| 5. How can TVET be improved in Saudi Arabia (policies, legislations, culture)? |
| 6. What is the role of different groups in improving TVET to address unemployment among Saudis? (government, TVET centres, trainers, Trainees, graduates) |
| 7. What do you think best practice in using TVET to address unemployment among Saudis? |
| 8. In contrast, can difficulties and weakness be identified? |
| 9. What framework/model would be suitable for TVET in Saudi Arabia (without pushing towards any type of models)? |

When interviewing each stakeholder group, the above questions were asked to all respondents. However, particular reference of the question to the industry sector of the respondent was made. In particular, there are four distinguishable stakeholder groups whose questions differed slightly in terms of their focus. These are the ICT sector, government sector, tourism sector and women's training and employment. In this respect, prompts and follow up

questions were used to obtain data grounded in the sectoral contexts. This was important in order to elicit the participants' views on the aspects of skills mismatch, unemployment and the role of TVET. However, whilst the interview participants were drawn from the ICT sector, government sector, tourism sector and women's training and employment, the aspects that this study focusses on (skills mismatch, unemployment and TVET) are not limited to the organisations, industry or sectors of the participants. These aspects cut across organisational or industrial structure to national issues. As such, the study participants were asked the questions which project on a wider national problem. Importantly, the study seeks to make inference on the role of TVET in reducing skills mismatch and unemployment at a national level using the selected sectors as illuminating reference cases. The study, in this respect, offers 'reader based' (Kvale, 2008, p. 127) opportunities for generalisability of findings given the exposition of the underlying generative mechanisms at play.

The use of the semi-structured interview technique offered flexibility which allowed for issues that emerged from the interviews to be explored in some detail (Miles and Gilbert, 2005) and also provided participants the opportunity to express their opinions frankly and in depth (Creswell and Creswell, 2017). This research method was useful as it enabled the researcher to gently prompt participants to share their views and experiences. However, there is a potential participant bias that may exist in adopting a semi-structured interview approach. Cohen et al. (2008), for instance, observed that asking leading questions may encourage a particular answer from the participants and result in bias. In order to reduce such bias, the researcher avoided asking leading questions and instead remained neutral and objective to the participants' responses to the interview questions.

The aim in adopting this research technique was to obtain the participants' views or perspectives on skills mismatch, unemployment and TVET. In obtaining participants' views through semi-structured interviews, the issues of reliability and validity of participants' responses arises. This is an inherent limitation of the research approach as obtaining participants' views or perspectives on a study topic (Creswell and Miller, 2000). However, Cohen et al. (2008) suggest that reliability checks can be put in place by the researcher to increase the reliability of interviews such as interviewing other informants or comparing with written sources to verify and cross-check the data produced. As such, increasing the sample size (24 participants for instance from the ICT sector alone) helped in this respect. The study adopted a common interview schedule across participants which facilitated comparative

analysis of interviewee responses (Edwards and Holland, 2013), with probing and follow up questions used to evaluate individual responses. Written sources, for instance, on unemployment statistics and government policies/programmes such as the Saudisation programme and TVET strategic plans, provided valuable information for corroborative data/evidence. This supported the efforts to ensure reliability and validity of the primary data analysis.

The guiding force for the development of the interview questions were the study's research objectives. Thus, the interview questions were linked to the research questions which addressed the research objectives. The rationale for the formulated interview questions and which research question they address is depicted in table 3.2 below.

Table 3.2: Interview questions, rationale and research question addressed

| No. | Question | Rationale | Research question addressed |
|---|---|---|---|
| **1.** | What is your view on the causes of unemployment among Saudis? | Starting the conversation with a general question asking for views/perceptions of the causes of unemployment among indigenous in Saudi Arabia. | What are the causes of unemployment in Saudi Arabia and how is unemployment related to skills mismatch? |
| **2.** | What is your view on the possible relationship between unemployment and skills of Saudis? | This question seeks to gain insights into the problems of unemployment and skills (mismatch or gap) in Saudi Arabia, and the relationship between them. | What are the causes of unemployment in Saudi Arabia and how is unemployment related to skills mismatch? |
| **3.** | What is the impact of the existing TVET system on employment among Saudis? | This question seeks to know the current situation of TVET system and the views of the various stakeholders on what VET doing in relation to the unemployment problem in Saudi Arabia. | What are the roles of TVET systems, strategies and policies in developing skills, addressing skills mismatch, and overcoming socio-economic and cultural problems, such as low female employment and high dependence on expatriate employment? |
| **4.** | What is your view on the role TVET can play in addressing unemployment among | This question seeks to get the views of the various stakeholders on what TVET can do in the future in relation | What are the roles of TVET systems, strategies and policies in developing skills, |

| | | | |
|---|---|---|---|
| | Saudis? Please explain | to address the problems of unemployment in Saudi Arabia. | addressing skills mismatch, and overcoming socio-economic and cultural problems, such as low female employment and high dependence on expatriate employment? |
| **5.** | How can TVET be improved in Saudi Arabia? (e.g. on the level of policies; legislations; culture; other) | This question seeks to gain understanding of any obstacles to TVET in Saudi Arabia and the opinions of the various stakeholders on what can be done to improve TVET in Saudi Arabia, including role of different groups) | What are the best practices and recommendations for developing TVET systems, strategies, and policies to solve problems of unemployment and skills mismatch within the socio-economic and cultural context of Saudi Arabia? |
| **6.** | What is the role of the various stakeholders in developing TVET to address unemployment among Saudi indigenous? [e.g. role of government; TVET institutions in public and private sector; | This question seeks to understand the views of the various of stakeholders on the roles of different entities (i.e. government, TVET institutions in public and private sector; trainers; trainees; graduates) to address the problems of unemployment and skills (mismatch or gap) in Saudi | What are the roles of TVET systems, strategies and policies in developing skills, addressing skills mismatch, and overcoming socio-economic and cultural problems, such as low female employment |

| | | | |
|---|---|---|---|
| | trainers; trainees; graduates] | Arabia | and high dependence on expatriate employment? |
| **7.** | What do you think of best practice in using VET to address unemployment among Saudis? | It would be useful to ask for examples of best practice if available.<br>[The following serve to give some examples and should not be considered as a choice list: match TVET curriculum with the market demands; on the job training because changes in market demands is too fast and TVET curriculum cannot match quickly; culture change of the Saudi perception of TVET type jobs through families and schools; culture change of Saudi towards working in general; others] | What are the best practices and recommendations for developing TVET systems, strategies, and policies to solve problems of unemployment and skills mismatch within the socio-economic and cultural context of Saudi Arabia? |
| **8.** | In contrast, can areas of difficulties and weakness in TVET be identified? | This questions seeks views to understand ways of identifying the difficulties and weakness and extend to explore some solutions or suggestions accordingly | |
| **9.** | What framework or model would be suitable for TVET in Saudi Arabia? | This question only for expert interviewees and seeks to get their views on the suitability of particular TVET system to Saudi Arabia (without pushing towards any type of models) | What are the best practices and recommendations for developing TVET systems, strategies, and policies to solve |

| | | | |
|---|---|---|---|
| | | | problems of unemployment and skills mismatch within the socio-economic and cultural context of Saudi Arabia? |

## 3.5 Data analysis

Thematic analysis technique (Braun and Clarke, 2006; Miles *et al*., 2013) has been used to analyse the cross-sectional data collected. This method allows for the emergence of concepts and themes from a large and richly-detailed collection of data. A thematic approach allows the researcher to codify and categorise information, and to then define and refine these themes (Auerbach and Silverstein, 2003). It also allows a hierarchical structure to emerge, including higher-level themes and sub-themes, as well as an understanding of the relationships between various themes and factors (Braun and Clarke, 2006).

The thematic analysis process typically involves 6 phases which include: familiarisation with the data; generating initial codes; searching for themes; reviewing and refining themes; defining and naming themes; and finally, producing a report or presenting a thematic structure (Braun and Clarke, 2006). This data analysis process is not a linear process where you simply move from one phase to the next. Instead, it is a recursive process, where you move back and forth as needed, throughout the phases. It is also a process that develops over time, allowing the researcher to develop theories about existing themes and trends, to allow themes to emerge from the data (Braun and Clarke, 2006). This approach is consistent with the ontological and epistemological assumptions of critical realism adopted. Importantly, thematic analysis allows research investigations to uncover new relationships and to understand them in practice. Also, thematic analysis does not get in the way of discovery, but instead enables concepts or ideas and their relationships to emerge from the data, and hence new theories can be developed (Orlikowski, 1993). Accordingly, the results obtainable from the research investigation are arguably more practical and useful to the context, in this case, to Saudi Arabia policy makers. Moreover, thematic analysis technique allows flexibility for themes, concepts and trends to be changed and reinterpreted as more data is gathered and as new ideas and their relationships emerge which either strengthen or weaken previously captured factors and their relationships (Charmaz, 2011).

### 3.5.1 Multiple case study approach to data analysis

Before outlining the detailed process involved in thematic analysis, it is imperative that the data preparation and approach to deal with the multiple case study approach is discussed first.

As highlighted in section 3.4, interview data was collected from stakeholders from the three key labour market sectors in Saudi Arabia: the ICT sector, government sector and tourism sector. With this understanding, a two-staged approach to data analysis was performed when employing thematic analysis.

The first stage was the data analysis performed within the respective sectors. This involved grouping the interview data with respect to the individual sectors in the investigation of skills mismatch, unemployment and TVET. The resultant categorisation of the data were those interviews with policymakers and training organisations; with selected ICT employers and Tourism service providers/ employers. In the first category of policy makers and organisation, this included data obtained from six organisation: Technical and Vocational Training Corporation (TVTC), technical girls' colleges (TGC), Ministry of Labour (MoL), Ministry of Education (MoE), Human Resources Development and Funds (HRDF) and Saudi Skills Standards (SSS). In this sector, interview data from 33 participants was analysed with results discussed in chapter 5. In the second categorisation of data (ICT employers), this included interview data obtained from 24 participants from Saudi Telecommunications Company (STC), CISCO and Communicating and Information Technology Commission (CITC). The thematic analysis results are presented in chapter 6. The last categorisation of interview data from the Tourism sector was for 24 interviews with participants from three organisations: the Saudi Commission of Tourism and Heritage (SCHT), the Al Hokair group and Movenpick Hotels. The discussion of the thematic analysis results from this sector is presented in chapter 7.

In this first stage, the aim was to identify key themes that arise based on the responses from the interview questions outlined in Table 3.2. Thus, data analysis using thematic technique (see section 3.5.2) was performed within the respective sectors. However, whilst there are sector specific aspects relating to TVET, skills mismatch and unemployment, these aspects also cut across organisations and sector wide structures. As such, the second stage in the data analysis was to obtain an understanding of the similarities and differences across the themes obtained from the three sectors. This analysis is important in order to demonstrate the wider challenges (and opportunities) that exist within the labour market on skills mismatch and unemployment and the underlying factors/forces that seem to sustain these aspects. In this respect, the theoretical sampling of large indigenous (national/local) companies, large multinational (international) corporations and regulators within each sector facilitated the identification of important processes and outcomes within and across sectors. Further, an

understanding of TVET in addressing the skills mismatch and employment was explored using secondary data. As such, key themes relating to what hinders (or could foster) TVET strategies in addressing these aspects were identified through this cross sector analysis. The across sector analysis results are presented in section 8.8.

The detailed thematic analysis process as applied within and across sectors is discussed next.

### 3.5.2 Thematic analysis process

Braun and Clarke (2006) outline the six phases of thematic analysis technique which may be used reflexively in order to allow critical processing and interpretation of data, from its raw form to a meaningful and structured thematic map, with associated definitions, descriptions and an understanding of relationships and trends. The six phases of the thematic analysis approach will now be described in greater detail.

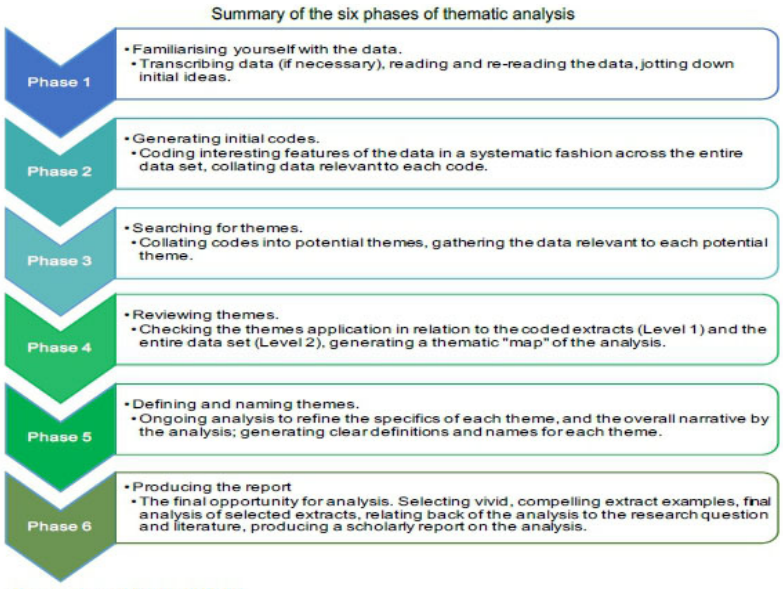



***Figure 3.3: The research process – methodological choices***

*Source: Braun and Clarke, 2006, p. 35*

#### 3.5.2.1 Familiarisation with the data

Firstly, the researcher should familiarise themselves with the data by immersing themselves in its content. This initial read-through should begin to interpret and understand the meaning of the views expressed and early patterns and trends may be identified. In order to do this, the interview recordings must first be transcribed into text, so that notes can be taken and it is easy to return to indexed sections (Braun and Clarke, 2006). Transcription of verbal data used for the data collected through in-depth interviews, where the data transcribed in writing to conduct thematic analysis. At this stage of transcribing the data, it is considered time consuming, frustrating and boring but at the same time it is a good way to get familiarised with the data and ensure the accuracy of data transcribed by check back against the original audio recordings.

#### 3.5.2.2 Generating initial codes

The second phase is to generate initial codes that by creating a list of initial and interesting ideas can be organised into expressive groups. Coding is done manually and is data-driven. In this phase, it is important to identify and encode all the qualitative data that is meaningful and relevant to the research objectives, questions and topics (Braun and Clarke, 2006). This phase involves several read-throughs and is an iterative process, which is open to interpretation of the data in different ways.

#### 3.5.2.3 Searching for themes

The third phase is searching for themes. When all data have been initially coded and gathered into a long list of codes, the researcher should then seek to connect and differentiate these codes into thematic categories. The aim is distilling a large number of codes into a smaller number of distinct and definable themes, according to the interpretation of interview responses. This phase will develop a number of selected themes and subthemes, which may be organised hierarchically (Braun and Clarke, 2006).

#### 3.5.2.4 Reviewing themes

The fourth phase is reviewing themes, which involves refining the elected themes identified in the previous phase (Braun and Clarke, 2006). This phase includes two parts. The first is reviewing all the coded data extracts for each theme and ensuring that they match together. The second is refining or filtering themes and reflect the validation of individual themes in relation to the data set. By revisiting the original codes and matching them to themes, the analyst can recognise which themes are consistent and useful for interpreting and understanding the data. For example, if there is not enough data to support a particular theme or if it is too diverse it cannot be a real theme. It may need to be restructured as separated themes or be combined within another theme. It is thus, necessary to regularly return to the data in order to re-interpret the raw data in relation to themes and sub-themes as they emerge. As the analysis progresses and the encoding becomes more well-defined and structured, it is possible that some data will no longer fit well within the defined themes. This is why validation should not only seek to find support for each theme, but should also ensure that as much of the meaning contained within the qualitative dataset is also accounted for within the thematic structure. This phase will therefore, produce a thematic map that reflects the structure of meanings expressed throughout the dataset (ibid).

#### 3.5.2.5 Defining and naming themes

The fifth phase is defining and naming themes. This means that once the data can be consistently grouped, and each grouping is distinguishable, the core semantic message of each theme should be defined and described in detail. This tells the story behind each theme as it is vital to reflect on how these themes fit into the overall story about the data in relation to the research question, aims and objectives, and avoid overlap between themes (Braun and Clarke, 2006). In the process of refinement some themes will include sub-themes. They can be useful for giving structure to a particularly large and complex theme, also for demonstrating the hierarchy of meaning within the data. As Braun and Clarke (2006, p. 36) put it:

> It is important that by the end of this phase you can clearly define what your themes are, and what they are not. One test for this is to see whether you can describe the scope and content of each theme in a couple of sentences. If you cannot do this, further refinement of that theme may be needed. Although you will have already

given your themes working titles, this is also the point to start thinking about the names that you will give them in the final analysis. Names need to be concise, punchy, and immediately give the reader a sense of what the theme is about.

#### 3.5.2.6 Producing the report

The sixth and final phase is producing the report when you have a set of fully worked-out themes and involves the final analysis and write-up of the report. The aim of the report is to tell the complicated story of your data in a way, which convinces the reader of the merit and validity of your analysis. It is important that the analysis, the write-up and the use of data extracts provide a concise, coherent, logical, non-repetitive, and interesting account of the story the data tells (Braun and Clarke, 2006). The report should include enough data to demonstrate the validity of each theme, the overall thematic structure, and how it contributes to the research objectives. Braun and Clarke (2006, p. 36) emphasise that "extracts need to be embedded within an analytic narrative that compelling illustrates the story that you are telling about your data, and your analytic narrative needs to go beyond description…and make an argument in relation to your research question".

In addition to interpreting and understanding the responses of interviewees in relation to the research questions, the aim of this research is to develop a set of suggestions to guide the development of VET systems, strategies and policies that address skills mismatch and unemployment in Saudi Arabia.

### 3.5.3 Theoretical saturation in thematic analysis

As analysis progresses, especially during the later stages of the process, a point may be reached where no new and distinct units of meaning are found. When the researcher finds that the codes and themes are able to consistently be applied throughout the dataset, saturation has been reached and no new themes are likely to emerge (Saunders *et al.,* 2017). It is important for the researcher to return to the data and approach it from a new perspective so that no meaning is lost, but once saturation is reached, it may not be necessary to seek to

identify more themes, but to instead to categorise the data and identify evidence in support of the established themes.

## 3.6 Research ethics

Ethical consideration forms an important aspect when undertaking any research, particularly social science research (Gerson and Horowitz, 2002; Saunders *et al*., 2012). Thus, this research has considered relevant research ethics issues. Firstly, the data collection strategy used in this study was approved by the University's Research Ethics Committee. This is an important step as it involved the consideration of all potential ethical issues that could arise from undertaking this research. Secondly, it was important to secure the consent of the organisations from different sectors involved in this research. For example, the government sector includes the Technical and Vocational Training Corporation, Technical Girls College, Ministry of labour, Ministry of Education, Human Resources Development Fund (HRDF) and Saudi Skills Standards (SSS). Organisations from the ICT sector include the Communication and Information Technology Commission (CITC), Saudi Telecom Company (STC) and Cisco. Organisations from Tourism and hospitality sector include the Saudi Commission of Tourism and Heritage (SCHT), Al Hokair group and Movenpick Hotels. Through corresponding with the management of the mentioned organisations within Saudi Arabia an approval for conducting interviews and distributing the questionnaire was obtained. This approval necessitated, in some instances, the need to maintain anonymity, by not mentioning the name of the interviewee in the thesis.

Further, in addition to the institutional approval obtained, each participant had to give informed consent before taking part in the pilot questionnaire or main interview phase of the research. In line with the university's ethics policy, therefore, participant information sheets and consent forms (see appendix 2) were prepared and completed prior to participation in the research. Thus, participants were briefed on the topic, objectives, and procedures of the study and did complete and sign a consent form.

In addition, this research has considered the privacy of interviewees or respondents (Robson, 2011; Saunders, 2012). In addition to the consent forms, at the beginning of the interview and questionnaire, a statement is presented giving the potential interviewee or respondent the choice of whether to participate or not in the interview or the questionnaire. In addition, the researcher assured the interviewees and respondents that the data collected would only be used for the purpose of the PhD research and to publish papers. Further, the identities of the interviewees and respondents would not be revealed to any other person other than the PhD

researcher and the PhD supervisors. The participants were also informed of their right to withdraw at any time, and were also told that they could refuse to answer any questions that they did not wish to answer.

In addition, the way in which data was to be subsequently stored in order to maintain confidentiality and anonymity was explained. In this respect, all data has been stored securely, using password protected computers. Any hard copies of transcripts do not have names on them, instead, codes are used. These are also stored securely locked under key in the cabinet.

Thus, the research ethics have been maintained and enhanced using these various techniques.

## 3.7 Limitations and chapter summary

This chapter has outlined the methodological framework of this study. The critical realism philosophical framework underlies this research with its associated ontological and epistemological propositions. In this regard, the ontological standpoint is that reality, though objective is highly complex because of the existence of often hidden 'generative mechanisms' (Bhaskar, 1978, p. 47) whilst the epistemological argument is that knowledge essentially derives from understanding these 'deep' structures and mechanism, not necessarily the patterns in the flux of events. Based on this philosophical orientation, the research approach and research strategy have been outlined. In particular, a case study approach has been adopted. In order to obtain a deep understanding of the role of TVET and skills mismatch and unemployment in Saudi Arabia, semi-structured interviews have been used. The interview collection technique is complemented by documentary evidence and a pilot study undertaken before the interview stage. The pilot study also helped in refining the interview questions.

Further, the data collected has been analysed using thematic analysis. The process of thematic analysis has been outlined based on the six phases stipulated by Braun and Clarke (2006). Further, the importance of considering ethical issues when undertaking research was emphasised including the steps adopted in order to promote this.

Thus, this research adopts a critical realist perspective in order to address the research objectives. The interview method has been adopted in order to explore the research issues at a deeper level. Whilst the interview method offers this deeper understanding, which is consistent with a critical realist perspective, it however, has limitations. The method is not suitable for large samples as this would make the research highly time consuming and impractical (Saunders *et al.*, 2012). This makes the results from interview method not generalisable as the sample size is not representative of the population. Further, the interview method has inherent problems of bias, poor recall and poor or inaccurate articulation (Robson, 2011). In addition, one of the major limitations is the possibility of change in the behaviour of the interviewee caused by the intrusion of the researcher (interviewer). Thus, Sands *et al.* (2007) argue that the interviewer's race, religion, gender, age, and social class can have an undesired effect on the interview process. Despite these limitations, the interview method is considered as a popular research method, which should enable the researcher to gain the

deep understanding of the 'objective but complex reality' with its often hidden 'generative mechanisms'. While not able to eliminate all the weaknesses of the research method, the interview design developed for this study minimises the demerits.

# 4 Overview of Policies and Institutional Context

## 4.1 Introduction

This chapter considers the general context, policies, and regulations relating to technical and vocational education and training (TVET) programmes in the KSA. It provides an overview of the role and background of the governmental and public organisations discussed in this study and which are related to TVET programmes. I t also considers various policies and initiatives developed by the government and public organisations that address the issue of unemployment arising from a lack of necessary education and skills. It explores whether the roles of the organisations have expanded since their initial launch or whether they remain unchanged. Since the Saudi government has aimed to reduce unemployment among the indigenous Saudi population by increasing employability, and to evaluate labour policies so that they benefit all Saudi, one might, therefore, expect ongoing change and developments in the organisations and policies tasked with achieving these objectives; this chapter will consider whether this is the case.

Different figures on unemployment in Saudi Arabia are available. This research focuses on indigenous Saudi unemployment, including both men and women who are seeking employment. Recent figures from 2017 indicate that the indigenous Saudi unemployment rate is 12.8%, which is relatively high compared to OECD countries. This rate is markedly different between men and women, with unemployment at 7.4% for men and 33.1% for women. The overall unemployment rate, including non-Saudi workers, is much lower at 6.0%, suggesting that expatriates are generally employed. Unemployment figures are impacted not only by the number of jobs available but also by the number of people seeking employment, which may increase over time, particularly as more women enter the job market.

Youth unemployment is one of the biggest challenges facing Saudi Arabia. The unemployment rate in this group has fluctuated between 27% and 34% over the last 15 years (as shown in Figure 4.1) and is forecast to exceed 40% by 2030 unless the problem is addressed (Arabian Business, 2016). A large proportion of young people are, therefore, unsuccessful at finding work and entering the labour market.


***Figure 4.1: Youth unemployment rate in Saudi Arabia from 2002 to 2017***
*Source: https://fred.stlouisfed.org/series/SLUEM1524ZSSAU*

Before evaluating the organisations and policies, it is important to have an overview regarding the issues surrounding the unemployment figures. This is discussed in greater detail in Chapter Two, with data showing that employment has been increasing within the indigenous Saudi population. This is because the labour market in the KSA has long been affected by structural imbalances and has been dependent on the skills of highly educated foreign workers. In 2009, 10.5% of the total indigenous population was unemployed, and 39.3% of indigenous youth aged between 20 and 24 years were unemployed. One of the reasons identified for this high rate is a lack of education and necessary skills required for job roles (Al-Asmari, 2008). There are also cultural issues, which act as a barrier to employment and training, such as gender discrimination, or the higher value frequently placed on an individual's social status over his or her employability (Ibid.).

As discussed in Chapter Two, the situation for women in terms of employment is even more difficult. Strict social rules curtail women's freedom to undertake various jobs and limit their employment prospects. There are very few occupational roles open to women in Saudi Arabia; consequently, unemployment among the female population is significantly higher than among the male population. Furthermore, women in general are culturally discouraged from working as they are expected to stay at home and care for their families (Calvert and Al-Shetaiwi, 2002).

## 4.2 Overview on organisations focusing on TVET

The KSA economy has long been heavily reliant upon oil exports. This has led to a lack of government and popular interest in the economic and employment opportunities provided by other sectors and activities (Vision 2030, 2016). It has also created an economic reliance upon particular industries and skills, resulting in underdeveloped TVET and educational systems in many sectors. It has only been in the last couple of decades, however an increase in the indigenous Saudi population and a slowing demand for oil has led the government to realise it can no longer rely on its traditional source of growing the economy and that it has to explore other opportunities. Since 2005, the government has identified issues related to indigenous Saudi unemployment and has subsequently launched initiatives to provide Saudi men, women and youth with the right sort of technical and vocational skills, as well as the necessary support, to get on the employment ladder (International Labour Office, 2011). As well as helping to reduce the unemployment figures within the indigenous Saudi population, these initiatives will also contribute to the diversification of the economy, one of the objectives of Vision 2030. A system, which supplies skilled workers for each industry as it develops, is, therefore, a key government aim.

.

Such an initiative is key to creating employment opportunities within the indigenous Saudi population and to increase efficiency and productivity across the kingdom (Saudi Arabia Labour Market Report, 2016). Various government departments were allocated their share of responsibility for ensuring that the Saudi indigenous population, including youth, receive the right kind support in acquiring the necessary skills to secure employment and contribute to economic growth. This chapter outlines the institutional and policy context of these initiatives, with a focus on the role of TVET programmes.

### 4.2.1 Educational regulatory bodies

The Saudi educational system is primarily under the jurisdiction of the Ministry of Education (MoE), which has the administrative responsibility for setting up appropriate educational standards that meet not only employment requirements but also social and religious educational requirements (MoE, 2017). The MoE is also responsible for setting the standards

for the TVET programmes necessary to set targets and monitor outcomes. Unlike in some countries, the MoE has retained responsibility for both education and training from a very young age up to the point of employment, including vocational pathways. While there were other organisations with responsibility for similar roles, most of them were dissolved in 2002, leaving only the Ministry of Higher Education (MoHE) and the MoE. In 2015, the MoHE and MoE were merged to create a unified body that is solely responsible for setting unified educational standards across the Saudi educational system.

In primary level covers ages 6 to 12; enrolment in this level is about 99% for males and 96.3% for females (Foreign Credits, 2012). Three years of intermediate level education for ages 13 to 16 follow primary schooling; enrolment is about 95.9% at this level, which culminates in the Intermediate School Certificate. After this there is secondary-level education from ages 16 to 18 where overall student participation is 91%; there are currently 1.5 million students in secondary education who graduate with the Secondary School Certificate. At the secondary level, students can choose whether to continue in general education or to change to vocational education and training, which also lasts three years, before potentially moving into higher vocational education. There are 1.1 million Saudi students at university in KSA. As 150 well as 24 state universities and nine private universities, there are 150 vocational training centres (Foreign Credits, 2012). Figures from 2008 report that 96,000 people were studying for diplomas and higher diplomas in KSA (Ministry of Economics and Planning, 2008), although this number is now likely to have increased.

As outlined in Figure 4.2, all young students attend primary school and the first four years of secondary school. It is at the age of 16 when individuals decide between different educational pathways. Those who continue into the final years of secondary school are more likely to go on to university, whereas those who go to industrial secondary institutes are more likely to enrol in TVET colleges. Career choices at secondary school, therefore, can affect later skills development options.

After three years of secondary school, students can opt for the vocational training institutes, which offer three-year programmes in the fields of industry, commerce, and agriculture. Intermediate school graduates can continue their vocational training at the Industrial Secondary Vocational Institutes while secondary school graduates can opt for technical colleges or girls' higher technical institutes, as well as the Military Vocational Training

Programme or the National System for Joint Training (NSJT), which allows students to train with private companies and move directly into employment following training.

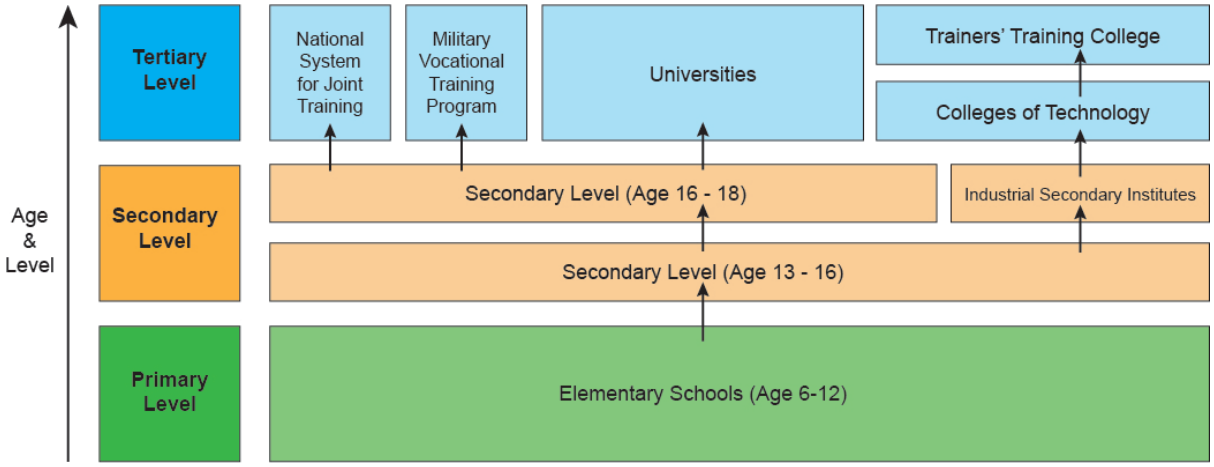



***Figure 4.2: The KSA education system, including general education and TVET pathways***
*Source: Al-Ghafis, 2012*

### 4.2.2 Labour market regulatory bodies

The Saudi Ministry of Labour and Social Development (MLSD) is responsible for the implementation of labour rules and regulations, the development of human resources, the settlement of labour disputes in the private sector, and the management of structural imbalances in the labour market. The MLSD works within the Ministry of Labour (MoL), which has overall responsibility for the labour market, for supplying the Saudi labour market with Saudi indigenous workers, and for imposing initiatives and policies to reduce unemployment by collaborating with educational and training organisations. The regulations and goals set by the MoE and MLSD provide guidelines for other organisations such as the Technical and Vocational Training Corporation (TVTC; see next section), which is responsible for providing TVET, as well as for the schools, higher education and universities which are the responsibility of the MoE.

The MLSD was formed in 2016 through the merger of the MoL and the Ministry of Social Affairs, an initiative deemed necessary by King Salman Bin Abdulaziz Al-Saud to better position the entity fulfil the Vision 2030 plan (Kingdom of Saudi Arabia, 2017). The new joint entity is intended to provide improved support to job seekers and citizens dependent on social services, as well as better allocation of benefits as workers move between social protection and the labour market. This unification of the different bodies brought them under one

umbrella so that decisions are implemented in a more standardised way throughout the labour market (International Labour Office, 2011), with the aim of having a greater impact on the labour force so that there are equal opportunities for everyone.

The MLSD plays a crucial role in the labour market as it is expected to provide regulations and guidelines which impact on the availability of the skill required to meet the needs of roles and employers. The organisation is also responsible for resolving any causes of imbalance in the labour market that may lead to adverse effects on the Saudi economy. Additionally, the MLSD aims to empower unemployed citizens through incentives to enter the workforce (described in Section 4.3), and to provide means to ensure that women and youth have the necessary skills to actively participate in the economy (International Labour Office, 2011).

### 4.2.3 Technical and Vocational Training Corporation

The TVTC provides vocational training in KSA at the secondary and tertiary levels and is separate from the mainstream education curriculum. It focuses on face-to-face, classroom training, which includes two-year tertiary-level courses taught at technical colleges (vocational training centres for males) and girls' technical colleges (for females). Industrial institutes (secondary-level education), military vocational training institutes (discussed later in this chapter) and private short courses (taught outside of the formal education system) also provide face-to-face training. The TVTC has prepared training plans for CoT, industrial and vocational institutes (IVT), higher technical institutes for girls, the military vocational training programme, vocational institutes for architecture and construction, and the National Organisation for Joint Training. It also offers joint training programmes in partnership with private sector employers (MoL, 2015). The Organisation for Joint Training (OJT) works in cooperation with employers to understand the labour market and ensure that training is provided to meet its needs.

The TVTC is responsible for providing technical and vocational training for the labour market. Previously, this responsibility was under the General Organisation for Technical Education and Vocational Training, but this organisation underwent many structural changes until it was renamed in 2007 as the TVTC (UNESCO, 2017). The structural changes were part of a strategic plan of providing TVET to engage Saudi youth and the indigenous population to participate and become engaged in employment opportunities (TVTC, 2015). Following the reform, the

organisations refocused on establishing labour-market driven programmes to ensure graduates have the necessary skills for employment, thereby filling employment gaps. Its main mandate is to develop, license and offer TVET for male and female citizens that meets the needs of the private sector; to set standards, issue licenses, and supervise the establishment of private TVET institutions; to qualify teachers and trainers; and to develop rules and regulations for best practice in TVET (TVTC, 2015).

The TVTC governs various TVET programmes and updates them in line with industry requirement. Furthermore, the organisation also provides consultation to advise individuals on career choices best suited to them based on their skills and potential. The TVTC currently employs 11,000 people, with a board of senior directors and managers responsible for the key departments such as finance, cooperative training, information technology, operations, training, and human resources (Zawya.com, 2016).

As a result of the restructuring, two forms of TVET exist. Firstly, technical and vocational public training includes programmes for CoT, industrial vocational training institutes, higher technical institutes, military vocational training, and vocational and industrial training institutes in prisons. Secondly, the Joint Training Programme establishes strategic partnerships with institutions in the private sector to provide both forprofit and not-for-profit. The TVTC also runs several apprenticeship programmes under the National Institute of Joint Training Programme, as well as on-the-job training to help bridge the skills gap and ensure better alignment with labour-market needs (Wang, 2014). For example, the Saudi Japanese automobile high institute programme provides specialised training in a way that is connected to vocational skills needed by industry (discussed further in Section 4.3).

The creation of national occupational skill standards was necessary for the improvement of training, occupational certification, and employment. One of the most important achievements is the National Occupational Skill Standards (NOSS), which are a set of standardised skills assessment criteria and definitions developed by the Saudi Skills Standards, which was set up by the TVTC. NOSS is a mechanism for bridging the growing gap between current workplace learning, technology and innovation, and the old economic institutions of education and training. NOSS standards are based on world-class standards tailored to Saudi needs, and they provide a framework for understanding the current skill levels and skill requirements of Saudi students and employees (Saudi Skills Standards, 2017).

As mentioned above, as Saudi Arabia continues to drive economic diversification, TVET has become increasingly important to achieve the goals of Vision 2030 of a knowledge society. From 2010 to 2014, the budgets allocated to TVTC increased by 41.6% to SAR23 billion (US$6.1 billion) (Wang, 2014). TVTC has 35 technical colleges, 35 secondary institutes, and 65 vocational training centres, as well as over 1,000 TVTC-accredited private organisations (Evosys, 2015) catering to over 120,000 trainees (TVTC, 2015). However, the current infrastructure is only able to absorb 32% of the total demand for TVET. In line with Vision 2030, the TVTC is implementing an ambitious expansion plan to expand its capacity to 950,000 and to increase the proportion of high-school graduates entering vocational training programmes from 7% to 12.5% (Zawya, 2016). In terms of TVTC results in the labour market, 50% of graduates find employment in the private sector, with 18.5% employed by the military and 10% in the civil service (TVTC, 2016).

By 2017, the TVTC was to have finished building more than 50 technical colleges, 50 girls' higher technical institutes, and 180 industrial secondary institutes. This was intended to be the first step in creating training capacity for about 500,000 students, including 250,000 girls. Boys and girls will be trained to work in vocational professions as IT technicians, medical equipment manufacturers, plumbers, electricians, mechanical technicians, body care specialists, and hairdressers. (MoL, 2015)

When establishing a training model for Saudi Arabia TTC (technical trainers college), a German model of vocational training was followed, which sets the standard in this field worldwide. Both theory and practice are part of the curriculum. Vocational training in Germany relies on cooperation between public schools and private companies, whereas in Saudi Arabia all aspects of training are the responsibility of public schools. Ghorfa, a German organisation that acts as TTC's operator, follows the requirements of the Saudi government in providing practical experience and training students towards their diplomas. The TVTC chose the German Society for International Cooperation (GIZ, Gesellschaft für Internationale Zusammenarbeit) as the operator for vocational training because it fosters the desired work ethic for TVET workers (Ghorfa, 2013). It aims to develop a high level of discipline and teamwork skills. Students have the possibility to continue discussions outside the classroom with their teachers. Teachers do not present ready-made solutions but show different approaches to solving problems (Ghorfa, 2013).

Despite growth in vocational training in KSA, its share of the tertiary education system is still less than 10%, whereas it is 44% in OECD countries (MoL, 2015). In order to promote vocational training with high-quality standards, the TVTC created the Colleges of Excellence in 2013. While other vocational training programmes are still implemented, they are not expected to expand, as is expected with the TVTC. The TVTC has also worked to improve the quality of the curriculum, in line with international benchmarks and led by the Saudi Skills Standard (MoL, 2015).

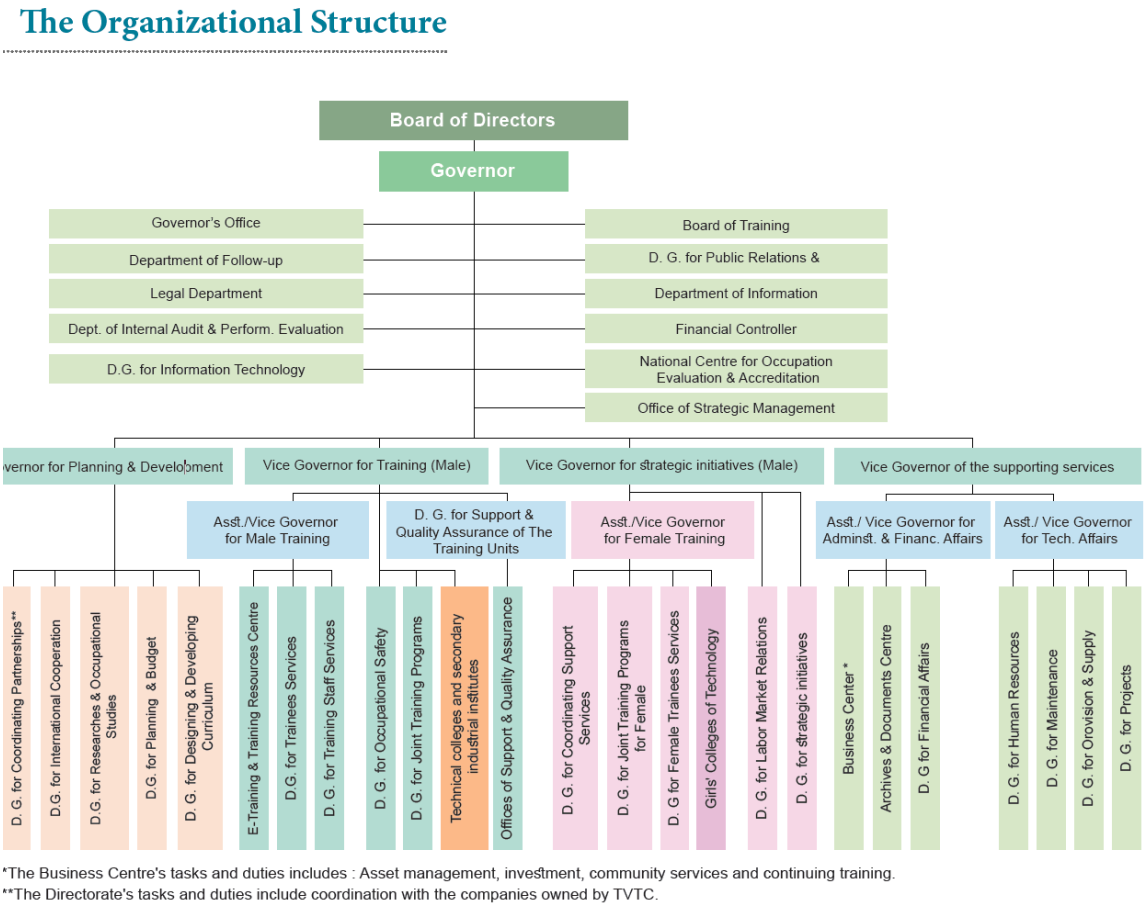



***Figure 4.3: TVTC Organisational Structure***
*Source: TVTC, 2015*

### 4.2.4 Human Resources Development Fund

The Human Resources Development Fund (HRDF) was founded in 2000 by the Saudi government to contribute towards the progression of human resources (HR) practices and to aid HR management (HRDF, 2017a). Alongside its role in advancing HR management, the organisation adopts several labour-market initiatives aimed at promoting employment of indigenous Saudis, such as Saudisation, Hafiz and Summer Training Programmes. It also helps

in provides services that are related to career guidance, training and job placements, and it helps individuals financially and with finding jobs in the private sector. These are explained in greater detail in the next section.

The Employment Offices are one of the initiatives created by the HRDF and the MoL to provide information and access to jobs. This programme aims to strengthen the relationship between the HRDF and the Employment Offices. It provides employment services to job seekers registered for Hafiz financial support through a recruitment database called Taqat. The HRDF and Taqat initiatives, which operate in many Saudi regions, provide training and employment support services to clients, such as signing support, connecting job seekers with employers, organising job interviews and workshops, providing professional guidance services and HR consulting. Taqat has recruitment offices in most cities, to ensure access to the largest number of companies and job seekers. The Employment Office assists job seekers by providing them with basic employment services, such as how to write CVs and achieve job objectives. The Office also shares career opportunities from the website of recruiters and then nominates suitable job seekers for these opportunities.

The training programmes provided by the HRDF include Tamheer (on-the-job training) and e-training (online self-development). National initiatives aim to train Saudi youth on specific career paths ending in employment, by ensuring that they meet the requirements of the labour market. The online self-development training allows trainees to develop skills essential to work, meaning that employers do not need to set up their own training systems. On-the-job training builds relationships between TVET institutions and private companies, so that TVET trainees can also gain experience working in the field, similar to an apprenticeship, while they are studying. These training initiatives are implemented by the MoL, the TVTC, the HRDF and the Saudi Chambers of Commerce and Industry (HRDF, 2017c).

The HRDF also provides additional services, such as a guide to HR policies and procedures, a multimedia library, a calendar which shows the most important HR activities nationally and internationally and a database of specified HR management articles, which contains a large number of HR management tools.

Since the HRDF firmly believes in the importance of collaboration for developing the labour market, its goals are linked to the strategic objectives of the MLSD, with its affiliated firms'

systems and the HRDF strategic objectives endeavouring to build a strong, productive and stable national workforce. The HRDF currently employs 300 people (Zawya, 2016).

### 4.2.5 Saudi Skills Standard

Saudi Skills Standards (SSS) was established in 2013 and is jointly owned by the TVTC and the HRDF. It facilitates the provision of attractive, high-quality skills for the indigenous Saudi population (SSS, 2017). SSS acts as the regulatory and awarding body overseeing quality assurance of TVET. Its mandate is to ensure trainees are employable upon graduation and have mastered the knowledge and skills required by business sectors.

SSS's main function is to define the NOSS, based on industry-determined occupational standards, and to develop accredited qualifications for all training programmes. Additionally, it runs national assessment and certification of trainees (standardised testing), as well as inspections of training institutions to ensure compliance with NOSS. Prior to this initiative, each college developed and delivered a curriculum based on its own interpretation of market demand.

SSS conducts research into common occupations in the kingdom and examines them in terms of salary, level of difficulty, age group, and employer expectation. NOSS identified 48 specialisations most suitable for Saudisation, (see Figure 4.4). Identified as priority programmes for colleges, these applied to 12 specific industries (Ghorfa, 2013). TVET institutions have used this framework to develop curricula to meet the needs of these specialisations. Actual training has been implemented through the Colleges of Excellence programme (discussed below) and, at the end of each academic year, SSS tests the students to ensure they reach the standards defined in the NOSS guidelines.


***Figure 4.4: NOSS specialisations***
*Source: Ghorfa, 2013*

The SSS programme also plans to apply the same standards to the process of hiring expatriate workers. Many expatriates are selected through international agencies, so they do not go through the same assessment system as Saudi employees. Consequently, expatriate workers are often less qualified than their agencies suggest. However, companies struggle to replace them due to administrative requirements and legal procedures. Therefore, as Saudisation expands, employers are concerned about maintaining the quality of expatriate workers, as there are a limited number of expatriate visas available.

Currently, SSS only accredits the quality of outputs from the Colleges of Excellence, but it will oversee the quality of all TVTC vocational training institutes within five years (Saudi Skills Standards, 2017). SSS plans to apply these standards to the process of hiring expatriate workers, using a new Skills Verification System (SVS). This SVS is currently being piloted stage: it has selected three international agencies as models to test potential expatriates on a set of ten skills while they are still in their home countries. The same tests will also be used to verify the skills of expatriates already in KSA, to confirm the skills profiles listed in their visa documentation (MoL, 2015). By implementing a standard skills classification system like this, employers will be able to directly compare indigenous employees with expatriate workers, thus valuing and encouraging skills development.

The main aim of SSS is get more young people – male and female – into high-quality TVET to improve their success in the labour market. At present, only 10% of the Saudi working population participates in TVET; SSS aims to increase this to 43% to be on a par with the developed world (Saudi Skills Standards, 2017). As well as increasing the number of young people in training is insufficient; SSS intends, therefore, to ensure that the training standards are designed and delivered to meet labour-market needs. This programme develops

definitions for the skills required to fulfil various job roles, so that employers, employees, and training institutions understand, according to a common set of standards, the skills that need to be developed. SSS currently employs more than 50 people who are responsible for ensuring application of standards is applied throughout the TVET system (SSS, 2017).

### 4.2.6 Colleges of Technology

The Colleges of Technology CoT, an expansion of the TVET programmes, focus on technological and scientific skills training. They opened in 1983 within the major cities across KSA. The primary reason for this expansion of TVET was to prepare high-school graduates in technical and vocational specialisations. The TVTC now runs 50 CoT (35 for men and 15 for women) in every major city; the colleges provide secondary-school graduates with a means of obtaining technical training as an alternative to a university degree. CoT graduates are awarded assistant engineer diplomas in one of the technical or administrative specialisations on offer, which include electrical, mechanical, chemical, administrative, computer, electronic, hotel and tourism technology, information, and environmental and food processing technologies. The curriculum follows a two-year programme divided into trimesters. To graduate, students are required to study five trimesters, each lasting 14 weeks, with the final sixth trimester in cooperative training or an internship/placement (UNESCO, 2012). The TVTC reported that over 130,000 trainees (around 115,000 men and 20,000 women) were studying at various technical colleges during the 2014/2015 fiscal year, during which 17,500 men and 2,500 women graduated. This corresponds to a graduation rate of about 35% for men and 25% for women enrolled per year (TVTC, 2016).

### 4.2.7 College of Excellence

In 2013, the TVTC founded the Colleges of Excellence (CoE) to increase the capacity of TVET by offering vocational training programmes through public-private partnerships with top-level global training providers (SAGIA, 2017). Many CoE in KSA are outsourced to foreign private companies, particularly from Europe and North America, providing sector-specific courses in business administration, hospitality and tourism, fashion and beauty, IT, and electrical technology. As of 2017, there were 37 CoE, with a plan to have 100 colleges by 2020. The initial aim was to train 450,000 people by 2020. However, the number enrolled in 2015 was

11,000 in total (Arab News, 2015). The CoE focus on the requirements of employers as well as the labour-market gap. The subjects, which are free of charge for Saudi nationals and for children with Saudi mothers, were chosen by the government to boost employment opportunities in various provinces (ICEF Monitor, 2016).

One of the CoE providers, Laureate Vocational, offers three-year diploma courses consisting of English language training in the first year, followed by two years of vocational training in four key areas: business administration; tourism, hospitality and leisure; information technology; and electronics technology. The ICT course "develops skills in computer network support and management. Students will learn how to build, configure, secure and manage computer systems found in most business environments". The tourism course "develops skills and knowledge for a broad range of events operations skills which involve client profiling, event feasibility, and event logistics". Both courses also include a work-based placement (Laureate Vocational, 2017).

### 4.2.8 Technical Girls Colleges

The Technical Girls Colleges (TGC) specialise in providing appropriate TVET programmes to women so that they can obtain employment. Their aim is to provide the female Saudi indigenous population with opportunities that will increase their contribution to the labour market. TGCs provide training in various vocational subjects as well as career guidance services. With training centres in major cities throughout the KSA, TGCs provide a single gender setting for training, making them a distinct form of TVET centre.

A summary of all the governmental, regulatory, and state-sponsored organisations discussed in this chapter is shown in Table 4.1.

***Table 4.1: Organisations and their roles in TVET, along with employee numbers and date of establishment***

| Organisation | Purpose | Year founded | Employees |
|---|---|---|---|
| Ministry of Education (MoE) | Responsible for primary, secondary, and university education across KSA. Sets | 2002 | 10,000+ |

| | | | |
|---|---|---|---|
| | regulations and standards for education. | | |
| Ministry of Higher Education (MoHE) | The leading authority on higher education. Became part of the MoE in 2015. | 2002 – 2015 | Not available |
| Technical and Vocational Training Corporation (TVTC) | Responsible for providing technical and vocational training for the labour market. Provides training and skills development, following guidelines and targets set by the MoE. Validates and supports training providers. | 1980 | 11,000 (board of directors, departmental structure) |
| Human Resources Development Fund (HRDF) | Responsible for progression of human resources (HR) and practices. It provides investment and approval for projects developing HR in KSA. Gives financial support to training centres, loans for students, and incentives for employers to support training. | 2000 | 300 |
| Ministry of Labour (MoL) | Responsible for monitoring and regulating labour in KSA and for meeting the needs of employers and industry. | Until 2016 | Not available |
| Ministry of Labour & Social Development (MLSD) | Created after a merger between the MoL and the Ministry of Social Affairs, which dissolved in 2016. It combines the responsibilities of the two organisations. Aims to improve creativity and innovation, and to develop the skills of Saudi nationals to enhance national economic growth | 2016 | 5,000+ |
| Saudi Skills Standards (SSS) | Developed the NOSS framework and sets standards for assessing and monitoring skills levels and achievement of educational goals. | 2013 | 50+ |

| | | | |
|---|---|---|---|
| Colleges of Technology | Prepares high-school graduates in technical and vocational specialisations. | 1983 | According to latest reports by the TVTC, over 130,000 trainees (around 115,000 men and 20,000 women) were studying at various technical colleges during the 2014/2015 fiscal year, of which 17,500 men and 2,500 women graduated. |
| Colleges of Excellence | High-quality TVET programmes through public and private partnerships to meet labour-market needs. | 2013 | The initial aim was to train 420,000 people by 2023. In 2015, the number enrolled was 11,000. |
| Technical Girls College (TGC) | Focused on providing women with employment and training opportunities, following a TVET pathway. TGCs are distributed in major cities across KSA. | 2013 | 1,000+ |

## 4.3 Overview of employment policies and initiatives focusing on TVET and skills

To increase indigenous Saudi employment, the government initiated a series of policies that prioritise employment of Saudis. The aim of this was to reduce unemployment and achieve greater social balance. Most of the policies seek to improve and support the career aspirations of indigenous Saudi by providing information about career choices and training opportunities. A further series of government in the area of TVET and skills for indigenous Saudis provides financial support for getting onto training courses, as well as ongoing training once in employment. There are also financial incentives for employers to take on low-skilled workers and provide on-the-job training. Many of these initiatives are targeted at promoting education and skills for Saudi youth and women especially, because these groups have the highest rates of unemployment (MoL, 2015). The following section provides an outline of key recent policies and initiatives.

### 4.3.1 Saudsation-Nitaqat

Saudisation is a government policy that came into force in 2011 and aims to prioritise employment of indigenous Saudi nationals over foreign nationals with a special attention on the private sector. Direct imposition and quotas are used to ensure that a minimum number of Saudis are employed in each role and organisation. This is implemented in both the private and public sectors, including government job roles; it can also be viewed as a sort of blanket reservation system for Saudi nationals that provides them with greater access to new job opportunities.

The policy has proved to be successful in increasing the employability of Saudi nationals who previously had limited success in securing these job roles. As well as the quota system, the policy reduces the number of sponsorship visas for foreign workers, thereby creating greater demand for Saudi nationals. A key Saudi labour-market policy is Nitaqat, the nationalisation quota. This imposes a Saudisation target on private companies who are classified as “green”, “yellow” or “red” depending on the industry classification and size, number of expatriate employees found in their workforce, and the length of their employment (see Table 2 below; American Centre for Democracy, 2011). As outlined in Table 4.2, organisations are expected to

have 10–39% of indigenous Saudis among their employees; they are awarded a "green" status on the Nitaqat rating scale if they achieve this target. Companies employing less than 6% Saudis are at risk of being given a "red" rating.

In 2013, Nitaqat was applied to 238,000 firms across every private-sector industry. These firms employed a total of 1.3 million Saudis and 6.5 million expatriate workers. At the time, there were 16,000 were in the red band, 18,000 in the yellow band, and 189,000 in the green band. The green band is also subdivided into three categories to distinguish between levels of Saudisation, with 15,000 organisations classified in the highest platinum category (MoL, 2015). The aim of these further bands is to give an equal "green" rating to companies, who are meeting the targets, but also to differentiate and highlight those who achieve higher levels of Saudisation.

The target Saudisation rate was set at 75% in 2012 for the private sector (Arab News, 2013), but the actual rate has been much lower, especially in sectors requiring manual labour and customer service vocational skills; tourism, for example, has 25% Saudisation. In 2013, the target rate was set at a much more conservative 30% (General Authority for Statistics KSA, 2016); in 2014, the Saudisation rate of 44.5% was lower than the target of 51% (Koyame-Marsh, 2016). Overall, there has been a 58% increase in Saudisation among private employers (MoL, 2013). The Saudi government rewards companies with a high rating by providing easier visa processing and business registration, as well as greater chances of being awarded government contracts.

***Table 4.2: Nitaqat employee Saudisation grading criteria***

| Total no. of employees | Red | Yellow | Green |
|---|---|---|---|
| 10 – 49 | 0 – 4% | 5 – 9% | 10 – 39% |
| 50 – 499 | 0 – 5% | 6 – 11% | 12 – 39% |
| 500 – 2,999 | 0 – 6% | 7 – 11% | 12 – 39% |
| 3,000+ | 0 – 6% | 7 – 11% | 12 – 39% |

### 4.3.2 Doroob programme

Doroob is an HRDF and MoL sponsored initiative launched in 2014 to become the national e-learning platform providing skills for Saudis who want to improve their employment opportunities. It is intended for students, job seekers, and those interested in developing their skills for career progression (HRDF, 2017b). Doroob's web portal offers information and free access to a selection of online courses covering a wide range of topics, such as business and management, computer science and IT, economics and finance, graphics and media, English language, soft skills, communication and leadership, and travel and hospitality (Doroob, 2017).

Unemployed people who register with Droob are provided with free access to take any of the available e-learning courses as well as to assistance on how to write CVs and prepare for interviews. The initiative is particularly directed at youth who are active on social media, as well as at women, since it provides them with the opportunity to learn in their private time without being worried about sociocultural issues. The e-learning courses are intended to be straightforward and helpful for Saudi nationals so that they can learn with confidence and accordingly progress in the job market (ICCDPP, 2017). Certificates obtained from Doroob are accredited and well recognised by companies in the private and public sectors (HRDF, 2017b)

The Doroob programme has a budget of SAR750 million and targets 25,000 applicants, with 2,500 users completing at least one online course (MoL, 2015). In addition to public-sector organisations, 14 companies or employers from the private sector participate in the Doroob initiative (HRDF, 2017a).

### 4.3.3 Takamol Holdings and Tamheer programme

Takamol means "integration, where all efforts are joint with stakeholders to create a better future". Takamol Holdings was initially established by the MoL to provide improved services to the labour market in an efficient manner by partnering with the private sector. It is considered as an implementation entity for several Saudi labour-market policies, such as day-care centres, Doroob, female transportation, and telework.

The Tamheer programme is a three-to-six-month on-the-job training programme administered by the HRDF. The programme is intended for university graduate job seekers who have been

unemployed for six months. Training takes place at government institutions, international organisations, and highly successful companies to provide graduates with work experience and the necessary skills for permanent employment (HRDF, 2017c). About 14 companies or employers from the private sector are engaged with Tamheer initiatives, in addition to public-sector organisations (Doroob, 2017).

### 4.3.4 Hafiz and Liqaat

These programmes was launched in 2011, The Hafiz database collects data about unemployed Saudi nationals, identifying those who need financial assistance to help them into employment. It was initially known only as 'Hafiz'; later, another programme called 'Liqaat' was launched which aimed at bringing job seekers and employers together.

Hafiz helps unemployed Saudi nationals by supporting them financially with a monthly stipend of up to SAR2,000. Hafiz is for unemployed people over the age of 20 who are able to work; those enrolled on it must attend training, interviews, and regular meetings with advisors. The Hafiz programme can expedite the process of getting a job or enrolling on an appropriate TVET programme (Arab News, 2012). Phase one of Hafiz began in November 2011, when there were 700,000 eligible recipients, 80% of whom were women. A total of 75,000 beneficiaries received job placements and 64,000 Saudis received jobs counselling. There are now more than 1.5 million Hafiz participants who receive approximately SAR3 billion per month in benefits, which include training and job support. The training, guidance and counselling depend on the field in which participants have graduated. As part of the Taqat programme (Taqat, 2017), claimants can receive a stipend of up to SAR3,000 per month, which is enough to support a simple lifestyle in a city like Riyadh (Numbeo, 2017). In 2014, Phase 2 of the Hafiz programme began, with 190,000 recipients claiming their first monthly stipend. Women made up 95% of the recipients (183,000) and the majority (82%) of female beneficiaries were under the age of 35 (MoL, 2015).

Liqaat is a job fair held in major cities that provides a platform whereby job seekers and potential employers can meet. Due to development problems, however, it has been on hold for two years, although a replacement run by a private company and adopting a similar concept may be established in the future (MoL, 2015). In 2012 the researcher worked with the Liqaat programme as a recruiter, meeting job seekers and employers. In this role, the

researcher introduced potential employees to recruiters and job interviews were conducted at Liqaat recruitment events in three major cities. From experience, some employers were avoiding job seekers from the Hafiz employment programme, claiming that they lacked the required skills and qualifications. Around 30 employers were engaged in the Liqaat event, but the actual employment rate was less than expected.

### 4.3.5 National System for Joint Training

The NSJT was established in 2001 with the aim of engaging the private sector in providing training relevant to the labour market. The programme's aim to allow employers to be flexible about skills required when hiring employees and to train Saudi nationals for employment immediately prior to starting, as well as to provide them with continued training during employment. This is done by establishing links between private employers and training institutions, so that students can secure work prior to completion of training and before developing all the desired skills. It allows employers to recruit people who have not yet finished their training, but who can give assurances regarding the skills they are improving. It also allows training to continue after employment begins. The intention is to ensure that Saudi nationals do not lose their jobs due to not meeting any new skills requirement. The programmes consist of public-private partnerships whereby private businesses train youths to work in their companies. The duration of training varies from several months to two years. Generally, 25% of training is classroom-based, with a focus on basic skills, work ethic, computer skills, and English language. The remaining 75% of practical training is specific to each specialisation and is conducted through labour-market programmes. Specialisations include subjects in ICT, engineering and tourism. Aside from the training itself, the benefit for employees is that employment is ensured for graduates. At the same time, employers benefit from employees funded by NSJT, for which 75% of the cost of employing people during training is provided by the HRDF. Trainees admitted to the programme include secondary-school graduates, university students, and dropouts from all levels of education (UNESCO, 2012). The sponsors of NSJT include the TVTC, which is responsible for training and implementation, the HRDF, which provides funding as well as supervision of theoretical training, and the Chamber of Commerce and Industry, which provides quality assurance for practical training at company facilities.

### 4.3.6 Military Vocational Training Programme

The Military Vocational Training Programme is a strategic partnership between the Ministry of Defence and the TVTC. It combines military training and technical knowledge, such as engineering, allowing Saudis to graduate with a technical qualification. Among its graduates, 18.5% are employed in various technical fields. It also enables girls to work in military clothing factories in order to increase female participation in the labour market. About 100 women working in these factories (Arab News, 2016a).

The programme takes on around 10,000 students a year, providing them with a living allowance and accommodation. Training sessions are divided into military training with a basic technical component and technical training with a discipline component. For example, discipline components may include communication skills, commitment skills and work ethic, and technical skills may include ICT and engineering skills. Most of the young graduates progress towards joining the private sector, while some opt to join the military. T he stakeholders in the programme are the Ministry of Defence and Aviation, the Ministry of the Interior, the TVTC and the National Guard (Arab News, 2016a).

### 4.3.7 Structured On-the-job training

The Structured On-the-Job-Training (SOJT) programme finances the training of unemployed job seekers (qualified or unqualified, male or female) in the workplace. The programme lasts from six months to one year. At the end of the training period, candidates receive a certificate that they have acquired the necessary skills to transition into permanent employment in the private sector (MoL, 2015).

The Tamheer programme, (described above) is one example of an SOJT initiative. Tamheer was created at the same time as SOJT and is funded by it. This programme focuses on helping unemployed Saudi nationals by financing them while they are being trained on the job. It is intended to encourage employers to take on people who are still developing their skills. It aims to increase practical skills in university graduates who might have a theoretical understanding but lack real experience. It is also intended to provide more useful skills to vocational trainees who might be unable to gain experience in some areas as part of normal training.

Other SOJT courses include life skills and technical training to help Saudi men and women adjust to working in the private sector (Wang, 2014). HRDF subsidises the salaries of candidates during training and a portion of the salary once work has begun, on the condition that they transition to permanent employment in the same firm for at least one year. Hiring firms pay the candidates' salaries and HRDF subsidises any subsequent employment of candidates for up to six months. Participating firms include contracted private-sector firms that comply with SSS qualifications and firms in the retail and service sectors with a high number of expatriate employees (MoL, 2015).

The first SOJT pilots were conducted in late 2015, with the soft launch continuing to April 2016. Seven companies participated in the pilot scheme, providing eight different job qualifications and certifying 200 trainees. National scale-up was planned during the second half of 2016, involving up to 100 selected companies with the goal of certifying 1,700 trainees by the end of 2016 (International Monetary Fund, 2016). In 2014, five companies participating in the pilot aimed to recruit 2,200 trainees each. One company, Al Shaya retail franchise, set a target of employing 8,000 on-the-job trainees by 2018 (MoL, 2015).

### 4.3.8 Training ending with employment

In this programme, Saudi nationals receive training in order to meet the job requirements and are placed into the job immediately upon completion of training. This is done in collaboration with private companies. Indigenous Saudis can, therefore, get an opportunity to train accordingly and gain some international experience to become eligible for the job (Clyde & Co., 2016). The purpose of this is to ensure that employment is secured before training is given, and to prevent people from changing jobs or specialisation after completing training. It allows private companies to identify employees and to put them through a programme that will prepare them for the job role.

### 4.3.9 Wage Protection System (WPS)

WPS is a financial system that regulates and monitors the salaries paid by companies. It was implemented by the MoL in 2013 and is mandatory for all Saudi companies. The system ensures that employees receive salaries as agreed in the work contract and as identified in the

Saudi social security policy. Under the WPS, companies are required to submit wage information to the MoL via the e-service program. This initiative maintains good employment practices and allows collection of information on employment, salaries, and employer discipline (Choughari, 2015). Companies who fail to submit employment data and salary data are liable to receive penalties; consequently, it prevents illegal employment practices and promotes transparency (MoL, 2015).

### 4.3.10 Aramco training and Saudisation programme

Aramco, a giant international oil firm, is the largest employer in KSA and has one of the highest rates of Saudisation. The total number of employees at Aramco is 65,282, of whom 55,466 are Saudis and 9,816 are non-Saudis, thus the company has an 85% Saudisation rate (Aramco, 2017b).

The organisation receives government support to provide training to indigenous Saudis. It has partnerships across other sectors beyond the oil industry. The TVTC currently sends Saudi workers for training at large private companies, such as Aramco and SABIC Petrochemical Manufacturer Company (Saudi Arabian Basic Industries Corporation). The TVTC awards them with certificates at the end of the course and government policy is to support these projects financially.

Aramco also has in-house training programmes such as the Vocational College Graduates Scheme, which helps participants develop the required practical skills to fulfil operational, maintenance, administrative and clerical jobs. The application opened in July 2017 (Aramco, 2017). Aramco has also set up the Vocational College Graduates Non-Employee Programme, which is designed to help recent graduates who have not found employment. It does this by providing further skills to technical, industrial and telecommunications graduates from community colleges and the Institute for Public Administration (Aramco, 2017d).

Aramco's cooperative training programme is for those attending industrial or technical colleges and the Institute of Public Administration. The objective of this programme is to assist participants in gaining practical work experience, as well as meeting the graduation requirements of their respective schools. Participants are evaluated at the end of the

programme to determine their overall grade for the internship and to award credits required for graduation by the school. This programme began in October 2017 (Aramco, 2017d).

Aramco have helped establish 12 specialised training academies across a wide range of disciplines, with a total capacity of more than 11,000 Saudi trainees (Aramco Annual Report, 2016). For example, Aramco has collaborated with the Ministry of Communications and Information Technology, the Communications and Information Technology Commission, and the TVTC by signing an agreement to establish the National Information Technology Academy. This academy is designed to tap the potential for job creation, particularly for women, in the expanding digital economy. The academy aims to enrol 700 students by the end of 2017.

Aramco also has an active role in promoting a knowledge-based society by developing Saudi skills and employability, and by supporting the Vision 2030 goals of social and economic development. Aramco's partnership with different sectors within the country helps to improve the skills of indigenous Saudis in technical and vocational fields. For example, they have helped to improve STEM (science, technology, engineering, mathematics) programmes and employment skills (Aramco, 2017c). Aramco have also supported other skills initiatives such as the King Abdulaziz Centre for World Culture, which "provides opportunities and challenges minds through traditional and unconventional resources in the arts and sciences, enabling and encouraging the innovators, entrepreneurs, and leaders of an economy built on knowledge and inventiveness". Furthermore, Aramco partners with Saudi Arabian Basic Industries Corporation (SABC), King Fahad University of Petroleum and Minerals, King Abdulaziz City for Science and Technology, and the Saudi Technology Development and Investment Company (Taqnia) to create the Saudi Company for Research Elements. The latter will provide a comprehensive and robust supply-chain management service for all research centres and universities (Aramco, 2017c).

### 4.3.11 King Abdullah Scholarship Programme

The King Abdullah Scholarship Programme (KASP) provides tuition and financial support for KSA students to study abroad. More than 30 counties have hosted Saudi students, with the most popular destinations being the US (35%), Canada (11%), the UK (15%), Australia (8%), New Zealand, China, Germany, France, and India. The programme initially funds students for one year of intensive English language proficiency training, with the option of undertaking a

preparation programme relevant to the intended field of study prior to enrolment in an undergraduate or postgraduate degree. The objectives of KASP are to give Saudi students an opportunity to complete tertiary education abroad and to provide them with disciplinary backgrounds and soft skills needed to work in the private sector (HRDF-Harvard, 2015).

In 2010 KASP involved 58,710 Saudi students pursuing their higher education abroad, including 12,166 females and 46,544 males. Most were enrolled in bachelor's degree programmes. By 2012 71,000 Saudi students had attended courses at US universities (compared to only 3,500 in 2005 when the programme began), with over 35,000 enrolled in English language training and approximately 20,000 in bachelor's degree programmes. In 2014, roughly 12,500 Saudis graduated from US universities, of whom nearly half were female (5,699). Women account for nearly 28% of 2014 KASP scholarships worldwide, an increase from 2010, when they represented 20.7% of scholarship holders. The government contributes approximately SAR 9 billion each year to the scholarship programme (MoL, 2015).

This initiative aims to set up sustainable development of human resources among the indigenous Saudi population. The programme is designed as a source of support for Saudi universities, as well as for the public and private sectors, by supplying highly qualified Saudi citizens and by effective development, preparation, and qualification of human resources. It aims to make Saudis internationally competitive in the labour market on an international level and in various fields of scientific research. The programme was launched with the vision of preparing new generations for a knowledge-based economy and society (UKSACB, 2017).

***Table 4.3: Summary of policies and initiatives, including aims and outcomes***

| **Policies and initiatives** | **Aims** | **Date started** | **Organisations involved** |
|---|---|---|---|
| Saudisation-Nitaqat | Replace expat workers with indigenous Saudis, especially in the private sector | 2011 | Ministry of Labour and Social Affairs (MLSD) |
| Doroob (under Takamol Holding) | Provides TVET programmes through e-learning | 2014 | MLSD, and HRDF |

| | | | |
|---|---|---|---|
| Tamheer initiative (under Takamol Holding) | Partnering with the private sector to understand the job requirements and provide the necessary training to indigenous Saudis | | MLSD, and Takamol Holding |
| Hafiz | Collects data of unemployed Saudis, offers assistance with training and finding employment, and provides a financial allowance. | 2011 | MLSD, and HRDF |
| Liqaat | Brings job seekers and employers together. | 2012 | MLSD, and Hafiz |
| National System for Joint Training | Funds continuous training programme to upgrade the skills of Saudi nationals before and during employment. | 2001 | TVTC and private-public partnership |
| Military Vocational Training Programme | Provides young Saudi nationals with military and TVET programmes. | | TVTC and Ministry of Defence |
| Structured On-the-job Training | Helps unemployed Saudi nationals by providing them with finances while they are being trained on the job. | 2015 | HRDF, SSS, private sector |
| Training ending with employment | Training that meets the actual job requirements. | 2015 | MLSD, HRDF, and private sector |
| Wage Protection System | Maintains transparent and legal employment practices and salaries, and collects data on employment. | 2013 | MLSD, |

| | | | |
|---|---|---|---|
| Aramco Training and Saudisation Programmes | Partnerships with private companies and training institutions to improve the supply of skilled technical employees. | | Aramco, TVTC and private sector |
| King Abdullah Scholarship Programme | Aims to have highly qualified Saudi citizens who can compete on an international level. | 2005 | Ministry of Education |

The Saudi government has introduced five main types of initiative aimed at developing the labour market. These are categorised in Table 4.4 and are: regulation and organisation of the labour market and private companies; financial incentives for employment; financial incentives for training; development of training curricula and qualifications; and increasing employment and training capacity by developing infrastructure. These categorisations indicate a desire to understand the skills needed and the jobs available, and to reduce the skills gap. Two of the broad categories, which are being addressed through several programmes and initiatives, focus on motivating behaviour, both among young people and trainees and among employers. There is clearly a strong drive to increase take up of training courses and to incentivise people towards following particular career paths. Another broad focus of government policy is the development of the training infrastructure and institutions, as well as improvement of the quality, content and delivery of the courses.

***Table 4.4: Types of strategies used by each of the main initiatives***

| **Strategies** | **Initiatives** |
|---|---|
| Regulation and organisation of the labour market and private companies | • Tamheer initiative<br>• Saudisation-Nitaqat<br>• Aramco Training and Saudisation Programmes<br>• Liqaat<br>• Hafiz<br>• Supporting women's jobs in retail sector |

| | |
|---|---|
| | • Supporting women's jobs in factories<br>• Women's part-time work<br>• Female transportation |
| Financial incentives for employment | • Wage Protection System<br>• Training ending with employment<br>• Hafiz<br>• Day-care centres (women)<br>• Productive families (women) |
| Financial incentives for training | • On-the-job training<br>• National System for Joint Training<br>• Military Vocational Training Programme<br>• Hafiz<br>• Telework (women)<br>• King Abdulla Scholarship Programme |
| Developing training curricula and qualifications | • Colleges of Technology<br>• Doroob<br>• Military Vocational Training Programme<br>• Colleges of Excellence |
| Increasing employment and training capacity by developing infrastructure | • Colleges of Excellence<br>• Supporting women's jobs in factories (women) |

## 4.4 Policies and initiatives made to encourage employment of women

Women in the Saudi labour market have historically had limited options for employment due to societal traditions, religious restrictions and regulations. Paternalistic notions, such as the idea that a woman's role is to take care of the house, husband, and children, have traditionally been, and continue to be, influential. Women still need to be accompanied by a male (a 'mahram') whenever they leave their house, with restrictions on the amount of time that they can spend with male strangers. Historically women have not been allowed to be involved or connected directly with men in the workplace, and segregation has been applied. Consequently, fewer job opportunities are available for women in the Saudi labour market and this reduces the desire and motivation for women to acquire employable skills and qualifications.

Until very recently, women have been banned from driving, thus limiting their independence and creating an additional burden for employed women, as they need transportation to reach their workplace. Moreover, Saudi women need permission from their guardian or custodian to accept a job. This permission must be from a male member of the family (father, husband or brother). Saudi women need such permission in many areas of life, such as education, marriage, and travel, as the KSA is considered a male-dominated society. Therefore, women's rights are limited in various ways.

Girls' education has not received the same attention as that of boys. Over time, however, the Saudi government has taken an interest in girls' education, creating more schools and universities for girls, reforming the girls' curriculum, granting financial assistance to female students and providing opportunities to Saudi women to enrol at all levels of higher education. Education for women is associated with vital measures of human resource development, such as reducing population growth and mortality rates, improving health and nutrition, and increasing literacy rates. Additionally, with the King Abdullah's Project in 2006, which allows females to study abroad, the future for Saudi women's education appears even brighter.

Most Saudi women in employment are in the education and public sectors. A system for segregation is in place, such as having separate offices. Only a minority of Saudi women are employed in the private sector, in part due to their lack of skills, in part due to the mixed gender work environment which may make women feel uncomfortable or which may not

comply with the beliefs of the family, and in part because of employers' negative beliefs about Saudi women and their suitability and qualification for work.

While there are many challenges to increasing the employment and labour market opportunities for women, in recent years there have been important policy changes. Vision 2030 has highlighted the need to increase women's participation in the job market. Based on recent figures from the Central Department of Statistics and Information, Saudi women's employment has increased by nearly 48% since 2010 (General Authority for Statistics, 2017). This is due to the government's initiative to increase women's participation in employment and meet the 2030 goal for Saudisation.

The rules and expectations regarding female employment have been relaxed compared to what they were decades ago and women can now be seen participating in professions like retail, hospitality, transportation, etc. Some Saudi women are attempting to make the most of these opportunities and are getting certificates in professional courses like law, finance, and journalism. Women also participate in diplomatic services. These developments are due to huge changes and improvements made in the education sector. There are half as many female students as male students in the universities. But even after these changes, there is a long way to go for women to gain equal employment opportunities compared to other countries. At present, women make up only 16% of the total Saudi workforce (MoL, 2015). More recent figures suggest improvement, with 34% of employees being women. However only 10% of non-Saudi workers are female (FT, 2017).

Overall, according to official data, at the end of 2015 the Saudi public sector employed 469,000 women, while another 500,000 worked in the private sector, which the government wants to expand while reducing its own payroll (The New Arab, 2017). The number of female employees in the KSA labour market has been on an upward trend for more than 20 years, as shown in Figure 4.5.

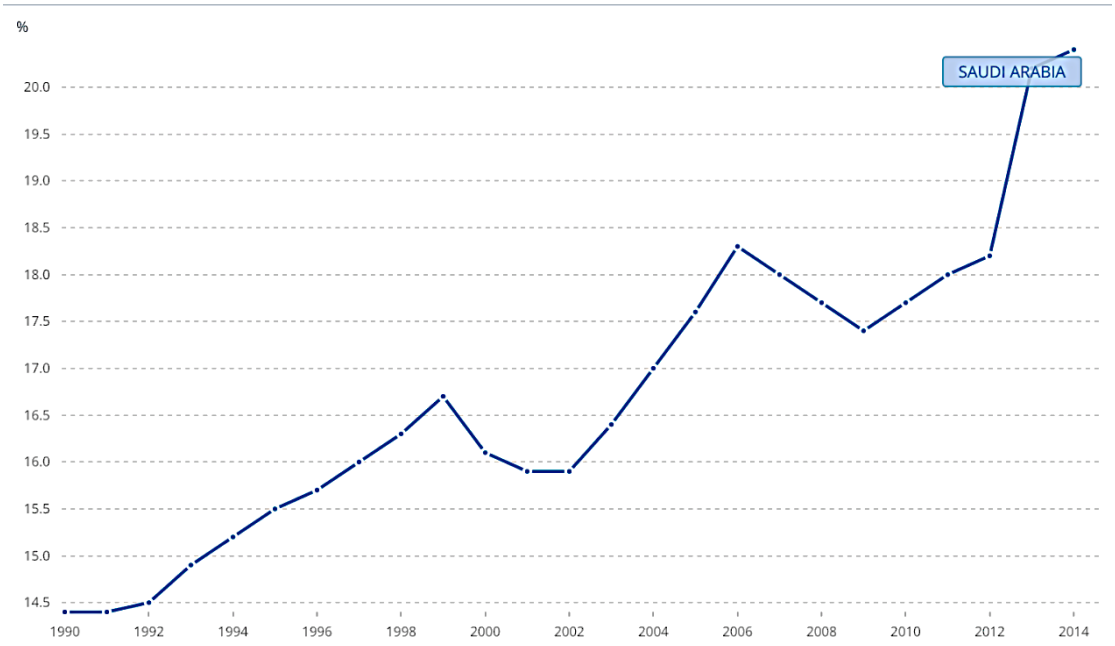



***Figure 4.5: Evolution of female participation in Saudi labour market***
***Source: The World Bank (2015)***

The following sections present various key recent initiatives aimed at supporting female employment.

### 4.4.1 Day-care centres

In 2005, the MoL introduced a new labour law requiring employers with 50 or more female employees to pay for childcare services for children under the age of six; for businesses with over 100 female employees, a day-care facility is required on premises. Nevertheless, it is not clear whether this law is enforced – the MoL does not provide information on whether it has resulted in new day-care centres, nor whether companies have been penalised for violating the law (Network, 2007).

Therefore, Takamol took it upon themselves to implement the programme and establish day-care centres in eligible firms. A pilot programme began in 2014, with policy analyses continuing throughout 2015. Full nationwide roll-out began in 2016 (G20, 2014). In this initiative, women are encouraged to pursue full-time job opportunities in day-care since it fits with the Saudi sociocultural norms and provides opportunities for women who are excluded from or cannot get any other jobs. Moreover, there was a very heavy reliance on the workers from developing countries in day-care jobs. But indigenous Saudi women are being given the

opportunity to increase the employment figures, while securing financial stability for themselves (Arab News, 2017).

The significance of this programme is twofold: firstly, it reduces a key barrier preventing mothers from participating in the workforce – the lack of childcare provision. Secondly, it provides infrastructure for early childhood education, thereby enriching the development of young children and improving the likelihood of educational success in the future (G20, 2014).

### 4.4.2 Female employment in the retail sector

Saudi women have for decades been left behind when it comes to many employment opportunities, including jobs in the retail and hospitality sectors. The Saudi government has taken an initiative to remove this barrier and increase employment opportunities for women's employment in these sectors (Fortune, 2015). A royal decree in 2011 mandated that all lingerie and cosmetic shops only employ Saudi women as sales clerks, with the objective of increasing women's employment in the private sector as well as to create a more comfortable shopping environment for women. In 2014, this was extended to all stores that sell merchandise specifically for women (G20, 2014).

In addition to legislating that only women can work in such stores, the policy also stipulates a minimum salary of SAR2,000, of which 50% is financed by the HRDF for up to two years. The fund also provides financial support for training for jobs in sales, customer service, store supervisor, and cashier roles. Per person hired, HRDF finances two to three weeks of sector-specific pre-job training at SAR1,000 – 1,500, as well as up to SAR2,000 for 12 months of on-the-job training. As well as subsidised wages, employers benefit by increasing their Nitaqat quotas. Enforcement of this initiative includes a one-year warning period, after which non-compliant shops are forced to cease trading. To re-open, shops must replace their staff with Saudi women within 24 hours. Additionally, stores found with female expatriate employees are fined between SAR3,000 – 10,000 per worker and are classified "red" in the Nitaqat quota bands (MoL, 2015).

In the first year of implementation, the policy created over 50,000 jobs for Saudi women (World Economic Forum, 2013). Most of female workers in the private sector are employed in retail (MoL, 2015).

### 4.4.3 Support Women's Jobs in Factories

The Support Women's Jobs in Factories programme incentivises factories to feminise their workforce by providing financial subsidies for female Saudi employees. Women in Saudi Arabia have been increasing employed in factory jobs since 2010; previously opportunities were very limited. For women to be employed in the factory jobs they require a lot of training and skills, which are provided by TVET programmes (Fortune, 2015).

The HRDF funds 50% of employees' salaries (up to SAR2,000 per month) for the first year, as well as the cost of factory training at SAR500 per month for up to six months. In addition to financial assistance from the HRDF, the MLSD, in collaboration with the TVTC, provides new female employees with the necessary training. This consists of a one-year pre-employment programme, divided into two phases: the first phase provides skills for general workforce participation, addressing general managerial, organisational, and behavioural skills, as well as English language and computer skills; the second phase focuses on skills directly related to a specific job. Furthermore, female employees are provided with job-related training for up to one year during their employment period, as required by the factory. The HRDF manages quality assurance of employees' skills during this year (MoL, 2015)

This policy was initiated in 2012, following the royal decree of June 2011, which entitled women to work in factories. It was implemented in two phases: the first phase focused on employment of women in pharmaceutical factories, and the second expanded to other sectors. Jobs offered under this policy include quality controllers, storekeepers, production workers, production-line supervisors, machine operators, and shift supervisors, as well as positions in HR, information technology, accounting, security, and other administrative functions. There are roughly 30,000 women working in the industrial sector in the KSA (Arab News, 2016b). In 2016, to further encourage female participation in factories, the MLSD made it obligatory for factory owners to employ a minimum of ten women in all phases of the production line (Arab News, 2016b).

### 4.4.4 Telework

According to the Saudi government (MoL, 2015), telework along with home-working options is expected to generate nearly 141,000 jobs by 2020, which is seen as a perfect opportunity for

providing women with decent and stable employment that does not conflict with sociocultural norms. This is because telework can be done remotely outside a company office and women can work from home without the necessity of a male accompanying their travel to work; in addition, telework can fit in with family responsibilities. Telework helps increase women participation in the labour market that would generally be hindered by traditional obstacles (The New Arab, 2017). The HRDF supports this programme by paying 50% of their salary (up to SAR2,000) for up to two years; it also subsidises training for female teleworkers in collaboration with the TVTC, which offers telework training programmes (MoL, 2015).

### 4.4.5 Part-time work

Even after the government initiative to engage women in the labour market, many women in the KSA find it difficult to commit to full-time employment due to family commitments and other traditional barriers. Saudi women are, therefore, being encouraged into part-time jobs so that they achieve financial balance for themselves and their families (The New Arab, 2017) . Incentives for this include access to free or lower-cost childcare. Other part-time work allows women to work from home. In 2013, there were 21,029 female employees working part-time in the Saudi private sector (MoL, 2015).

### 4.4.6 Productive Families

Productive families are a self-employment initiative founded in 2004 by Community Jameel to promote Saudi entrepreneurs (predominantly women) who wish to start home-operational businesses (Community Jameel, 2017). In this initiative, the Saudi government has launched TVET programmes to support and train women who make food products to improve the quality of their products. Cooking food is something that most women do at home; by providing a platform where they can sell their food products, the government is offers a flexible entrepreneurial opportunity to women, which aligns with social norms. Many of these women and their families are provided a platform by the government to exhibit their products at various events. This will help the women and their families to become financially independent and reduce their dependence on social security (Arab News, 2015). The programme is based on a microfinance concept and provides interest-free loans from the

Saudi Credits and Savings Bank, starting at SAR3,000 (Arab News, 2014) with a cap of SAR300,000 per project (MoL, 2015).

Under this programme, the entrepreneur may also receive financial support for training from the HRDF. The objective is to provide a solution to unfavourable work environments for women in the private sector as well as to help women balance work and family life. Businesses eligible for the scheme include those which involve handiwork, such as arts and crafts, sewing, and the design and/or manufacture of clothing and accessories; food preparation and trading; technical jobs such as photography; hair-styling, grooming, and perfume manufacture; event planning and other intellectual products and online services. Businesses are allowed to employ Saudis only (MoL, 2015). Since its launch in 2004, the programme has financed more than 200,000 projects (Community Jameel, 2017). Latest figures show that, in 2015 alone, the Productive Family programme generated 24,856 job opportunities for women (ALJ, 2016). In 2014, it created 24,939 job opportunities for women, while in 2013 the figure was 29,625 (Arab News, 2014).

### 4.4.7 Female Transportation

The informal ban on female driving in Saudi Arabia became official state policy in 1990; as a result, Saudi Arabia is the only country that prohibits women from driving. Public transport is also limited, restricting mobility for those unable to afford a private driver. Getting to and from work is a significant barrier, therefore, to female participation in the workforce as it requires them to either find a male family member to drive them, or to hire a driver at significant expense (around US$880 per month). The female transportation initiative is intended to ease the financial burden of transportation for women to and from work. The pilot was initiated in the first quarter of 2014 and continued throughout 2015, providing transportation services to 77,000 female employees employed in education, manufacturing, and retail. National roll-out began in early 2016 (MoL, 2015).

Women in Saudi are being trained through TVET programmes to gain skills required in transportation and fulfil the gap in the labour market. In 2017, it was announced that the ban on women drivers would come to an end, which is likely to have a significant impact on employment.

*Table 4.5: Summary of policies and initiatives relating to the employment and training of women*

| Policies & Initiatives | Aims | Outcomes |
|---|---|---|
| Day-care centres | To increase mother's participation in Saudi workforce and early childhood education at the same time as providing them with financial stability | Not available |
| Supporting women's jobs in retail sector | Increase employment opportunities for Saudi women in private sectors and reduce expatriate workers | 48% of Saudi women employed in retail sector |
| Supporting women's jobs in factories | To increase women's participation in manufacturing jobs | Obligatory to employ at least ten women in all stages of the production line |
| Telework | Providing Saudi women with suitable work environment and fill Nitaqat quota with Saudi female labours, as well as reducing transportation costs | Telework and work from home will create around 141,000 jobs by 2020 |
| Part-time work | To encourage female participation in the labour market, improve work-life balance, and enable financial balance for themselves | In 2013 there were 21,029 Saudi females employed in a part-time job in private sector |
| Productive Families | To become financially independent and reduce their dependence on social security; to provide a suitable work environment for Saudi women and improve find work-family balance | In 2015, the initiative created 24,856 job opportunities for women |
| Female transportation | Supports female | In 2015, 469,000 women |

| | | |
|---|---|---|
| | transportation to increase their participation in labour market, sustain their jobs and increase job opportunities for Saudi members with disabilities | were employed in the public sector and 500,000 in the private sector |

## 4.5 Challenges in aligning TVET programmes' policies and initiatives with the labour market

Even after the Saudi government's initiatives and policy introductions for Saudisation, there are still many barriers to getting indigenous Saudi men, women, and youth onto TVET programmes and engaging them in the government's Saudisation efforts by 2030. Currently there are very limited opportunities for apprenticeships and other sorts of job training in Saudi Arabia. Moreover, companies have hesitated to invest capital in training individuals in employment skills if they are unable to get expected returns. As a Harvard study has shown, the turnover rates in the Saudi labour market are very high; for example, only 59% of individuals who received pre-job training under the Hafiz programme were able to retain their jobs after training during the first three months (MoL, 2015).

Major challenges in implementing the TVET programmes are the structural imbalances and lack of effective communication between organisations responsible for promoting the programmes. Structural imbalances make it difficult for organisations to implement the planned strategies effectively because different organisations are unable to work in a unified manner. This may be due to a lack of capacity in some specialities or regions. Therefore, the scale at which TVET should have been rolled out and implemented has not been achieved. This has been partly addressed by the formation of government ministries, which aim to regulate and provide guidelines for organisations to follow. Many Saudis do not feel connected to the concept of TVET and fail to realise its importance. The organisations responsible for disseminating information about TVET have often not been aligned with other organisations in an efficient manner, with the result that there have been difficulties making the TVET programmes successfully available for all the indigenous Saudi population (MoL, 2015).

Co-education of males and females is a major concern due to the traditional barrier against men and women studying together; this acts as deterrence to developing many key skills, especially the communication skills required for many jobs. Many international employers constantly face these issues and are worried that the capital invested by them in training the indigenous Saudi population is not paying them the kind of returns that they expected. Even though female participation in the workforce has increased, it is still considerably very low compared to that of men.

Perception of status is another major challenge for many Saudis since they regard many positions as low-level jobs and refuse to take employment if it is not considered prestigious. This attitude towards prestige makes it difficult for the government to convince many Saudis to opt for TVET programmes and start from entry-level jobs. Most Saudis seek work only in high-level positions even when they might not have the necessary skills. This constant conflict between job requirements and maintaining their social status prevents many indigenous Saudis from taking employment opportunities. Due to the pressure of maintaining their status, many Saudi males do not allow the females in the family to take up basic jobs as this might hurt their reputation in society. Such a social pressure in maintaining their status leads many Saudis to choose unemployment over taking up basic employment opportunities despite the government providing all the necessary TVET programmes for them to get started. Another issue related to TVET programmes and the labour market is the extremely conservative nature of Saudi society, which results in a limited number of employment opportunities that indigenous Saudis can take. This may widen the gap between the available TVET programmes and the labour market.

To overcome these challenges so that government policies and initiatives can be successful in reducing unemployment and filling the labour-market gap, structural changes are required in Saudi society. These changes will take a long time because the country has been very conservative for a long time. The role of women will need to be encouraged more and their social and economic participation needs to be viewed as highly important.

## 4.6 Conclusion

This chapter has provided an insight into the various organisations working towards the Saudi government's vision of Saudisation by 2030. It has also highlighted the various policies and initiatives that aim to increase the contribution of TVET programmes to reducing unemployment among the indigenous Saudi population and filling the gap in labour market. Based on the overview in this chapter, it is clear that the Saudi government has been aware about the issues of unemployment, but that it has only been in the last decade that serious efforts to resolve the problem of indigenous unemployment have been made. This has been prompted by the need to address the problem reduced oil exports over the past decade. Realising that it no longer has the luxury to rely on oil exports alone, the government has sought to address the issues of unemployment, especially among Saudi youth.

Furthermore, the increase in the population and the reduction of employment opportunities have put pressure on the Saudi economy, with indications of falling living standards. The government has also realised that its traditional conservative social ideas have hindered the need for its indigenous population to enter the labour market at all levels, which would in turn lessen the reliance on foreign expats and workers. TVET programmes have had an impact in reducing unemployment, but the structural imbalances within the system means that more needs to be done. Furthermore, female employment has always been very low and the Saudi government has realised that it cannot afford almost half of its population out of work. The recent efforts by the Saudi government have been constructive in bringing many women into various fields of employment, but much remains to be done to encourage female employment and overcome the sociocultural barriers, which have held women back.

# 5 Analysis of Policymakers and Training Organisations Interviews from: TVTC, TGC, SSS, HRDF, MoL, & MoE

# 5.1 Introduction and overview of the government sector in relation to TVET

This chapter presents case studies and interviews, which focus on the policymakers and training organisations responsible for TVET discussed in Chapter Four. Firstly, it will provide an overview of the sectors and organisations under consideration. Secondly, it will analyse and interpret primary interview data collected from six organisations within these sectors: Technical and Vocational Training Corporation (TVTC); technical girls' colleges (TGC); Ministry of Labour (MoL); Ministry of Education (MoE); Human Resources Development and Funds (HRDF); and Saudi Skills Standards (SSS). The primary research collected data from 33 interviewees (16 women and 17 men) from these government organisations. All ten of the interviewees from the TGCs were women, and only this subgroup was given questions focusing on women's TVET and employment. These interview responses will be analysed using a thematic analysis approach, in order to understand the importance of TVET, the challenges faced, and the potential areas for improvement in policy and practice. The role of indigenous Saudi women will be discussed and analysed in a separate section. A summary of the findings, including problems identified and policy suggestions will be presented at the end of the chapter.

The government sector plays a central economic and social role in Saudi Arabia and is the largest employer of indigenous Saudis (Ministry of Labour and Social Development, 2016). For TVET to be effective in reducing unemployment and providing the skills required by the labour market, support from the government sector is essential. An in-depth analysis of this sector, including current policies and practices, is outlined in Chapter Four.

### 5.1.1 Overview of organisations

The organisations in this sector, including their current policies and practices, are discussed in detail in Chapter 4. Table 5.1 below summarises the number and types of interview undertaken at each organisation.

Table 5.1: Participating organisations, with the number and role of interviewees

| Organisation | Sector | Number of interviewees and role breakdown |
|---|---|---|
| TVTC: Technical and Vocational Training Corporation | TVET | 10 interviewees:<br>8 directors,<br>2 trainers |
| TGC: Technical girls' colleges | TVET | 10 interviewees:<br>4 trainers,<br>3 students/trainees<br>3 directors |
| SSS: Saudi Skills Standards | TVET | 2 interviewees:<br>1 director<br>1 trainer |
| HRDF: Human Resources Development Fund | Human resources | 4 interviewees:<br>All directors |
| MoL: Ministry of Labour | Labour | 5 interviewees:<br>2 directors<br>3 employees |
| MoE: Ministry of Education | Education | 2 interviewees:<br>All directors |

## 5.2 Interviews and analysis

Employee interviews within the public sector were divided into five sections, each addressing a different topic. These sections focus on: *Participation of indigenous Saudis in the TVET sector* (Section 5.2.1); *Skills profiles and labour-market needs in the TVET sector* (Section 5.2.2); *The TVET system* (Section 5.2.3); *Stakeholder responsibilities for development* (Section 5.2.4); and *Suggestions and recommendations for the future* (Section 5.2.5).

Thematic analysis was applied to the responses to the interview questions, with emerging concepts being categorised into themes. These provide the structure for the subheadings of the five sections described above.

Six main themes were identified:

1. Understanding the labour market and need for skills
2. TVET provision and quality
3. Saudi career choices and awareness
4. Saudi cultural barriers
5. Cooperation between TVET institutions and organisations
6. Wider education systems and employment pathways

An overview of the analytical structure is shown in Figure 5.1.

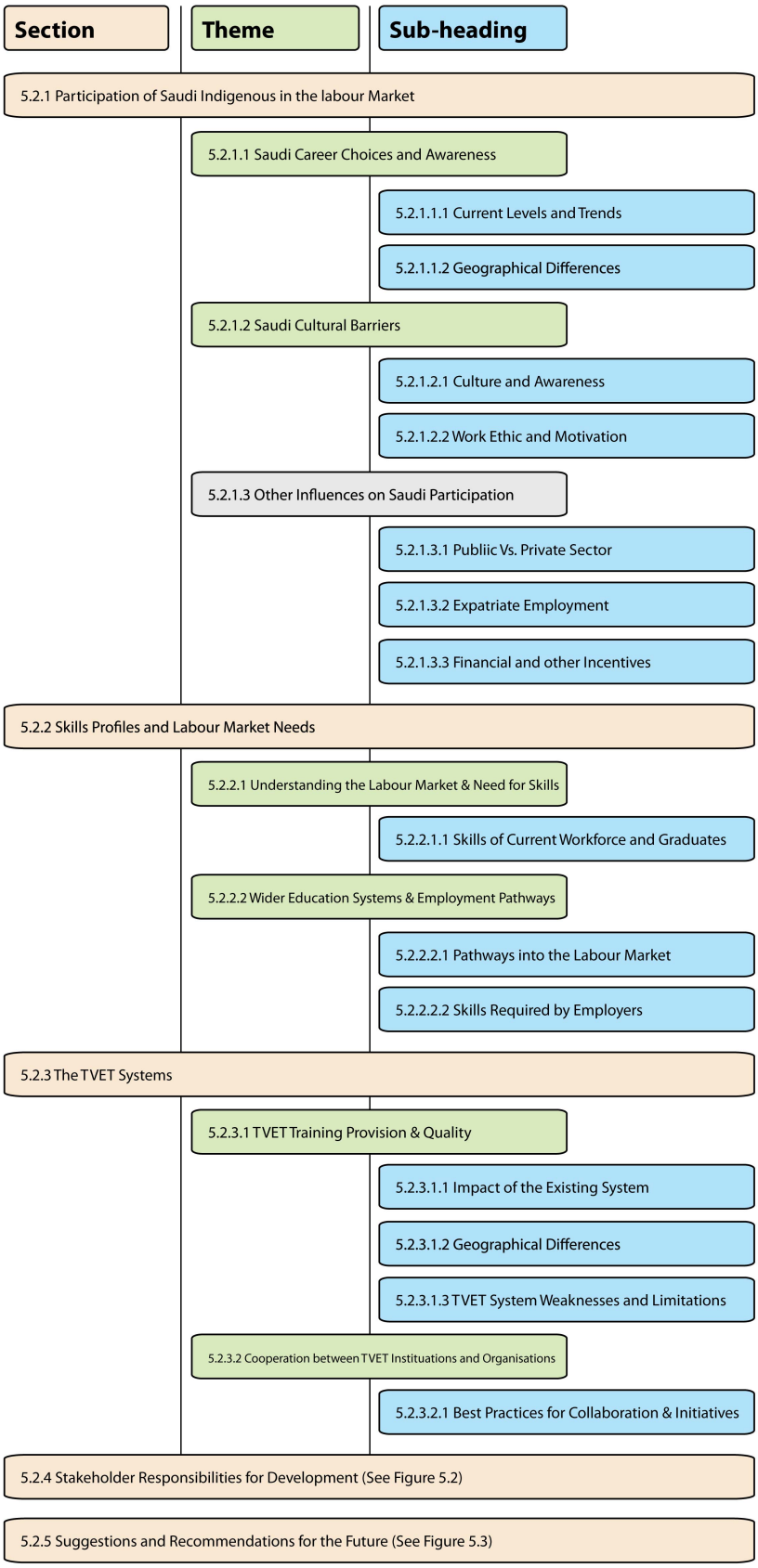



***Figure 5.1: Qualitative Analysis Structure, including sections, themes, and sub-themes***

Table 5.2 provides an overview of all the interviewees participating in the research on this sector, along with their interviewee reference number, organisation and job title. Interviewees from the TGCs were given different interview questions and these responses are analysed separately in Section 5.2 of this chapter.

Table 5.2: Interviewee reference numbers and job titles

| Interviewee reference number | Position | Interviewee reference number | Position |
|---|---|---|---|
| MoL-E1 | Research and Development Employee | TVTC-D1 | Trainee Services Manager |
| MoL-E2 | Scholarships Officer | TVTC-D2 | General Manager for Joint Training Programmes |
| MoL-E3 | Training Researcher and Scholarship Assistant | TVTC-D3 | Manager – Department for Technical Information |
| MoL-D1 | Manager – Training and Scholarship Specialist | TVTC-D4 | General Director – Documents and Archives Centre |
| MoL-D2 | General Supervisor for Programmes and Projects of Women's Work | TVTC-D5 | General Manager for Design and Development of Curricula |
| HRDF-D1 | Head of Analysing Training Needs | TVTC-D6 | General Director of Studies and Research |
| HRDF-D2 | General Manager of Employment Services | TVTC-D7 | General Director – Career Guidance and Recruitment |
| HRDF-D3 | Deputy for National Labour Observatory | TVTC-D8 | Administration Manager |
| HRDF-D4 | General Manager of Strategic Planning and Development | TVTC-T1 | Trainer in Study and Research |
| SSS-D1 | Director of National Occupational Standards Specialists | TVTC-T2 | Trainer in Mechanical Technology |
| SSS-T1 | National Occupational Standards Trainer | | |

| | | | |
|---|---|---|---|
| MoE-D1 | General Manager – Administration for Training and Scholarship | | |
| MoE-D2 | Manager of Academic and Vocational Development | | |

### 5.2.1 Participation of indigenous Saudis in the labour market

This section focuses on factors influencing the current level of participation of indigenous Saudis in the job market and the trends relating to employment, training, and participation. It includes two main themes that were identified through analysis: *Saudi awareness and career choices*; and *Saudi cultural barriers.*

#### 5.2.1.1 Saudi career choices and awareness

***5.2.1.1.1 Current levels and trends***

Evidence from data collected from interviews with governmental organisations and TVET institutions reveal three main perspectives on the causes of unemployment and the rates of participation of indigenous Saudis in the Saudi labour market: the market structure; the socio-economic perspective; and the socio-cultural factors as an HRDF director states "there are economic, cultural, social, and structural reasons for unemployment" (HRDF-D3).

Many interviewees acknowledged a number of social factors impacting both unemployment and employment of indigenous. As the interviews with HRDF show that the relationship between social factors and Saudi unemployment are complex, with social and cultural factors having more impact than simply technical skills (HRDF-D1; HRDF-D2; HRDF-D3). For example, an HRDF director said that "there are no problems that Saudi youth face in waiting for jobs for a year or two years or expenses as some of them have another income or their families provide for them financially" (HRDF-D1).

Moreover, another HRDF director argues that: "there is no Saudi electrician or plumber. Saudis who graduated from TVET institutes generally either seek work as office director or

branch manager. For most menial work we depend on expatriates. For example, governmental authorities hired Saudi electricians but they do not practice; they are working as supervisors to expatriates" (HRDF-D4). From this quote it can be inferred that the refusal of Saudi indigenous to work in TVET jobs is not simply an issue of lack of training or skills development, but is also related to Saudi job preferences and the decisions made by Saudi trainees and students, which is in part due to a lack of awareness about the jobs available. Although this lack of awareness in the TVET field is partly due to a lack of knowledge and familiarity, it is also a result of cultural perceptions about these jobs, whereby few Saudi youth are motivated to pursue them or to learn more about them, largely due to these jobs being seen as low status and undesirable. The same came be said about jobs in the private sector, as a TVTC director emphasises "Saudi youth has no awareness and trust of the private sector" (TVTC-D2). These quotes demonstrate that Saudi's negative social perception and lack of awareness of TVET impact their career choice and hence their participation in the job market.

The interviewees also highlighted the common practice of fictional employment in the private sector associated with the Nitaqat Saudisation programme. Unreal employment involves the recruitment of Saudi workers who are registered as employees, but who are not actually working. Employers may do this to improve their record of Saudisation and to achieve better Nitaqat ratings. For example, a MoL employee stressed, "the problem of Nitaqat legislation is unreal employment" (MoL-E1). A TVTC director commented that because of the "Saudisation fictional employment number is high in small companies in all vocational and administrational jobs" and therefore recently, "the MoL introduced intensive monitoring to identify these companies and issue large fines to those participating in fraudulent practices" (TVTC-D2).

#### *5.2.1.1.2 Geographical differences*

The interviews demonstrate that Saudi indigenous' career choices and awareness of TVET vary across different geographical areas in the KSA. For example, an SSS director stated: "we have trends to go to small villages because in big cities Saudis do not wish to work in vocational jobs but in villages, there are a lot of factories hiring Saudis to sew, for example" (SSS-D1). Another director from TVTC said "the society in Jeddah and Riyadh is different of that in Qwaaia and Alahsa (rural villages), where all kinds of vocational jobs are accepted unlike in the big cities" (TVTC-D5).

In addition, an SSS director explained that the cost of living varies significantly from location to location in Saudi Arabia, particularly between the big cities and rural areas, thus while the amount of pay received for technical and vocational work is considered too low to live comfortably in the city, it is sufficient for Saudis living in the country: "vocational work offers low pay for citizens in Riyadh and Jeddah unlike for people who live in small villages like Tabook, for whom 7000SR is sufficient to live on. Now, the Civil Service improves salaries greatly according to job location, and contract" (SSS-D1).

#### 5.2.1.2 Saudi cultural barriers

##### *5.2.1.2.1 Culture and awareness*

Many interviewees discussed the issue of Saudi cultural barriers and its impact on Saudi indigenous labour-market participation and unemployment rates, especially with TVET-type jobs (TVTC-T1; TVTC-D2; TVTC-D8; MoE-D1; SSS-T1; SSS-D1; HRDF-D2). In particular, society's inferior view of TVET-type jobs was emphasised as a significant limiting factor, as alluded to by the following quote: "the [inadequacy of Saudi indigenous] skills is not as much of a challenge as the culture and Saudis' demeaning view on vocational jobs" (HRDF-D1) (TVTC-D8; MoE-D1). Indeed, as another respondent indicated, Saudi families typically see TVET jobs as shameful, hence Saudi youth are reluctant to apply for such jobs for fear of losing prestige and social status: "older generations refuse to allow their sons to accept these kinds of [blue-collar] jobs. We are actively trying to get rid of society's bad notion of some professions like carpentry, plumbing etc. by offering secondary students invitations to visit our centres and instruct them about the importance of technical and vocational professions" (TVTC-D1). One TVTC director criticises the media for not doing enough to try to change the prevalent dishonourable reputation of TVET and related jobs: "there is not enough media involvement to change the bad notion of vocational jobs in the Saudi society and no social media to treat this matter in a channel" (TVTC-D2). Although some interviewees acknowledge effort that have been made by the TVTC to use the media to influence and improve public perception of TVET, the general understanding was that more needs to be done in this regard. Additionally, the interviews show that there is a strong preference among Saudi indigenous to work in the government sector (discussed in 5.2.1.3.1), as opposed to the private sector where most technical and vocational jobs are created, as stated: "A lot of job seekers lack vocational culture as the majority exist in the private sector" (HRDF-D1). Therefore, there is a need to address these

socio-cultural perceptions that are constraining indigenous Saudi participation, especially in technical and vocational jobs.

#### *5.2.1.2.2 Work ethic and motivation*

There was a perception among interviewees that some employees enter the labour market without the work ethic required for successful employment. There is "no job commitment, no conviction or belief in technical and vocational work" (TVTC-D5). Evidence from the interviews with government organisations and TVET institutions point to a relationship between unemployment and lack of skills or motivation, in terms not just of technical skills but also of other complementary skills essential for the job such as a good work ethic. Another director confirmed that: "Job seekers do not have a culture of commitment of time or a culture of respect for work or teamwork culture, which is due to the combination of the established culture in Saudi and the lack of important work values, such as discipline, accountability and responsibility being imparted in the general education system" (HRDF –D2).

Indeed, Saudi indigenous' poor work ethic is exacerbated by the fact that private sector employers, particularly in small companies, are not willing to provide motivation through financial incentives, considering the lingering stigma of young Saudis as indolent, unreliable, and not serious about work; a TVTC director commented that "small institutions in the private sector do not invest in Saudi trainees as a strategic goal in the long run to improve the skills needed and as an important element in taking the place of expats, because there is no trust in Saudi worker skills and commitment" (TVTC-D6).

### 5.2.1.3 Other influences on Saudi participation

Based on interviewee responses, other, in part related, considerations can be identified as influencing the level of indigenous Saudi participation in the job market, including: public versus private sector work; expatriate employment; and financial and other influences.

#### *5.2.1.3.1 Public versus private sector*

In light of the above considerations about Saudi career choices, indigenous Saudis prefer to work in the public rather than the private sector, since work in the public sector is less demanding, with fewer working hours, better job security, and higher pay, benefits, and

insurance. (TVTC-D1; TVTC-T1), as the illustrated by the following: "Saudis do not feel secure in the private sector and prefer government sector work" (TVTC –D5); "working in the public sector give Saudis prestige and higher social status. In the public sector one's career path is clear unlike the private sector where in some cases you can find sale representative in the same position for long period" (HRDF-D3). As a result, respondents identified that Saudi participation in the government sector is higher than in the private sector.

#### *5.2.1.3.2 Expatriate employment*

Another key influence on the indigenous Saudi participation rate in the job market is overreliance on expatriate workers as many responses clearly indicate- a director from HRDF stressed: "employers prefer expatriates to Saudis because they take a lower salary" (HRDF-D4). A TVTC director also explained: "the problem is that Saudi indigenous always cost companies more than expatriates in both salary and unpaid benefits so employers are not applying Saudisation regulations which directly impacts Saudi indigenous' job market participation" (TVTC-D8). Moreover, the interviewees mentioned that there is a big difference between the work culture of indigenous and expatriate workers, with the latter being widely perceived as more committed, easier to be controlled, work harder and are cheaper (TVTC-D1; TVTC-T1). For example, a trainer from TVTC argued that: "it is cheaper and easier to bring expatriates, as Saudi indigenous refuse to accept low pay" (TVTC-T1).

The interviewees also mentioned the contradiction between the higher salaries demanded and expected by indigenous workers who generally have a lower skill profile than lower paid expatriates: For example, a TVTC director explained that "the expatriates' skills are higher than the Saudis; however, the Saudi salary is four times higher than that of the expatriates" (TVTC-D1).

Therefore, TVET graduates need to be prepared for the labour market, not only in terms of skills but also, and equally importantly, in terms of work behaviours such as "commitment culture of time or work respect culture or team work culture" (HRDF-D1).

#### *5.2.1.3.3 Financial and other incentives*

Other factors affecting the participation of Saudi indigenous in the technical and vocational job market relate to the lack of financial incentives in the sector: for example, directors of TVTC

explained: "TVET workers in small and medium sized companies receive low pay, no medical insurance and no bonuses" (TVTC-D2); "the problem is that vocational jobs are low paying. So Saudis only take on these jobs temporarily to allow them to complete their studies at university and change their career path. The wage scale is a reason why vocational and technical graduates with diploma desire to have a university degree to get a higher salary" (TVTC-D5). An HRDF director confirmed that: "one of diploma problems is that its salary is much less than that of a bachelor. We must work as supporters in their salaries" (HRDF-D3). This demonstrates that the job reward system can influence the Saudi's perception regarding TVET and help to attract more indigenous workers to the field.

### 5.2.2 Skill profiles and labour-market needs

This section focuses on the current skills profiles and the availability of skills within the indigenous Saudi population, as well as the need for TVET skills in the labour market. It focuses on the current need for skills, the skills gap, and trends in the development of the TVET sector. It includes two main themes that were identified through analysis: *Understanding the labour market and need for skills*; and *Wider education systems and employment pathways.*

#### 5.2.2.1 Understanding the labour market and need for skills

##### *5.2.2.1.1 Skills of the current workforce and graduates*

It can be observed from the primary data collected from interviews with governmental organisations and TVET institutions that the interviewees were split regarding the relationship between unemployment and the skills of indigenous Saudis, whereby one-third of the 23 interviewees (excluding the interviewees from TGCs) argued that high indigenous unemployment is not related to the lack of Saudi skills, i.e. there is no relationship between unemployment and Saudis' skills (MoL-E1; MoL-E2; MoL-E3; MoL-D1; TVTC-D3; TVTC-D4; SSS-D1; MoE-D1), whereas two-thirds emphasised that unemployment rate can directly be attributed to a lack of Saudi skills and hence a relationship between unemployment and Saudis' skills exist (MoL-D2; TVTC-D1; TVTC-D2; TVTC-D5; TVTC-T1; TVTC-T2; TVTC-D6; TVTC-D7; TVTC-D8; HRDF-D1; HRDF-D2; HRDF-D3; HRDF-D4; SSS-D2; MoE-D2).

In terms of the types of skills demanded by the labour market, many interviewees mentioned the need to develop a broad set of skills, which are not just technically relevant to their field. Indeed, some interviewees claimed that soft skills, such as communication, time management, teamwork and motivation skills, as well as a strong work ethic and a sense of responsibility and accountability, are even more valuable than simply having string technical skills. For example, an SSS director explains that: "in order to be employable, it is important that workers respect time and their colleagues and take responsibility for their work and stop giving excuses" (SSS-D1). Moreover, a director from TVTC commented that: "one may be qualified from A to Z but if you don't have the skills to communicate with your colleagues you will not be effective in your job" (TVTC-D3). Another director from the SSS argued: "Saudi workers have skills that need refinement but they lack the drive to develop them" (SSS-D1). Similarly, an employee stated that: "Saudis are skilled but their work ethic and motivation are lacking, particularly as compared to expatriates" (MoL-E1).

In addition, many interviewees mentioned the importance of English language skills for most sectors in the KSA yet many Saudis still have inadequate command of the English language which reduces their employment opportunities, as an HRDF director emphasises: "Saudis have a weakness in English language since the education system does not focus enough on teaching English" (HRDF-D4).

There is therefore evidence of a need to develop indigenous Saudi soft skills such as work ethic, continuous learning, and motivation. According to the interviewees, part of the responsibility of the TVET system is to instil these good habits and customs upon graduates. These responses support findings from Section 5.2.1 that TVET graduates need to be prepared for the labour market, not only in terms of hard skills but equally importantly in terms of soft skills.

#### 5.2.2.2 Wider education system and employment pathways

##### *5.2.2.2.1 Pathways into the labour market*

Regarding the coherence between the skills expected by the labour market and those acquired by graduates of the TVET system, it is clear from many interview respondents that greater links are needed (MoL-E1; MoL-E2; MoL-D1; MoL-D2; TVTC-D3; TVTC-T2; MoE-D2; HRDF-D1). A director from the HRDF argued that "some of the output of the systems of general education

and vocational training are not compatible with the labour market" (HRDF-D1); for example, some finish training without acquiring English language skills or they do not have practical experience. Therefore, there must be a "link between education and the labour market" (MoL-E1). The respondents argued that better coherence requires improved assessment of the. A TVTC trainer explained: "there must be a study to identify the official vocational and technical needs in work" (TVTC-T2).

Moreover, many interviewees explained that the general education system in Saudi Arabia fails to properly guide students on vocational pathways as potential future career paths – rather all students are steered towards university education without consideration of whether it is the best match for the student. As a result, students do not consider TVET as a credible alternative option, hence reinforcing the negative stigma of vocational pathways. This view is depicted by the following: "In general education (schools) TVET is not considered as an option when advising students about their future career. Teachers do not guide students on their future career based on their good skills or desires, for example, if a student is better skilled to turn to vocational work, there is no one to direct them on how to have a career in the vocational field as all students are prepared only for university" (HRDF- D1).

#### *5.2.2.2.2 Skills required by employers*

Many of the interviewees mentioned the need to develop a broad set of skills, which are not just technically relevant to a particular field; examples are time management and team-working skills. An SSS director explained "employability skills are important so that we train our youth to be skilful and sincere in work due to employers' requests. Workers must respect time and should not always give excuses on big or trivial matters, and they should respect their colleagues and work extra hours" (SSS-D1). Therefore, "we must concentrate on skills application rather than theoretical matters. Behaviour skills must prevail among families and teachers to be models to male and female youth" (MoE-D1). Interviewees drew attention to the need for skills, which are not only theoretical or intellectual, but also practical and more general, including the attitudes, communication skills, and work ethic of TVET trainees and workers. When speaking with employees from this general work sector (as opposed to ICT or tourism), there was more of a general focus on soft skills and transferable skills over technical skills specific to a field.

### 5.2.3 The TVET system

This section focuses on the current TVET system and the methods used to provide vocational skills development and training. It considers the impact of current systems, institutions and initiatives, and it explores their strengths, weaknesses, and best practices. It includes two main themes that were identified through analysis: *TVET training provision and quality*; and *Cooperation between TVET institutions and organisations*.

#### 5.2.3.1 TVET training provision and quality

***5.2.3.1.1 Impact of the existing system***

The interviews show a clear division in response to the question regarding the impact of the Saudi TVET system on the skills of indigenous workers, with interviewees from the TVTC and MoL identifying a positive impact on indigenous' skills and employment opportunities, while those from HRDF, SSS and MoE claimed that the TVET system is still underdeveloped and ineffective at producing graduates that have the skillset to be fully work-ready. These interviewees highlighted several issues that need to be addressed in order for TVET in the Kingdom to have a significant impact in the development of Saudi youth, which are discussed in Section 5.2.5. An example of a response from a TVTC director that demonstrates a positive impact of the TVET system on graduates' skills and employment prospects is: "there is a great positive effect of this system. Our institution qualifies 25,000 to 30,000 Saudi workers, men and women, annually" (TVTC-D1). Such statements may be biased considering that the TVTC is the main governmental institution responsible for TVET in Saudi Arabia. In contrast, the following quote from a director of MoE provides an example of the view that the current TVET system does not adequately equip students with the skills demanded by the labour market: "even though students graduate from a specialisation such as computer technology, when they apply for a job in the private sector, they are rejected due to lack of experience. They say that although they have a certificate, they don't have enough experience or skills" (MoE-D2). Others also voiced the opinion that there is still not enough training available to Saudis, i.e. the supply of TVET is too low: "a lot of people are willing to learn but they don't know how as there isn't enough training available to them" (SSS-T1). Accordingly, these quotes show that more needs to be done in terms of the quantity and quality of training provision in KSA.

#### *5.2.3.1.2 Geographical differences*

Interviewees highlighted again the geographical differences in needs in Saudi Arabia, and hence the need to be able to customise the TVET system accordingly to ensure the impact is maximal across the country. For example, an SSS trainer stated: "I think the curriculum must be according to people, location, their tradition and qualifications etc." (SSS-T1). Similarly, a director from MoE explains: "Saudi Arabia is a semi-continent and every area in it has its own culture. Strategic planning is a must. There must be a relationship between geographic nature and the curriculum" (MoE-D1). This further underlines that cultural factors have significant influence on Saudis' desire, motivation and qualification to train and work in vocational and technical fields.

#### *5.2.3.1.3 TVET system weaknesses and limitations*

Analysis of responses regarding areas of weakness in the TVET system confirmed the need for a stronger link between skills education output and labour-market needs. For example, an HRDF director argued that on "most TVTC programmes quality does not match the required skills in the labour market. Employers are not always convinced of graduates' skills… so it is important that the education system is connected with the labour market and its requirements" (HRDF-D1). As the interviews demonstrate, the result of such weak links is a persistent skills gap: "companies, such as SABIC and Aramco complain about the poor outputs from TVTC" (MoE-D2).

A TVTC director addressed limitations in the TVET system due to a high number of students directed towards a university degree following high-school graduation, as alluded to previously. This is explained by the following: "The MoL decided that 38% of school graduates should be directed vocationally, but in reality, significantly more than 62% of students go to university, which directly reduces the number of students in vocational and technical training" (TVTC-D1); "most of general education graduates, elite students, go to universities and weak ones go to TVTC" (MoE-D1). Moreover, an HRDF director explains: "career opportunities for trainees are weak and competition between general higher education and vocational training does not help. A graduate with a high GPA does not go to technical education and goes to the university. This is a problem afflicting TVTC since only weak students enter the system thus outputs are weak" (HRDF-D3).

Additionally, several interviewees remarked on the poor quality of TVET trainers and curricula, which impacts the quality of the graduates: "We find weakness and difficulties and challenges

in TVET curricula, which limit the quality of the outcomes" (TVTC-T2). Part of the problem is that the targets and benchmarks placed on TVET institutions are based on number of graduates, rather than on quality, as the following explains: "TVTC concentrates on quantitative outcomes and not qualitative" (MoE-D1). As a result, the incentive is not there to improve standards but simply to make as many students graduate as possible.

As several interviewees touched light on, one reason to explain the focus on quantity by the TVTC on training institutions is because, currently, the TVET system does not provide enough specialisations to fully cater to the labour market, while training capacity in specialisations offered is insufficient to saturate the market with Saudi graduates, as the following explains: "the labour market is too big and hard to cover all jobs with Saudis (quantitatively and qualitatively) in short time" (SSS-D1);"the participation rate of Saudis in technical and vocational jobs is low because these fields have limited training capacity compared to produce enough outcomes to meet labour-market requirements – compared to a lot of outcomes in general education" (HRDF-D1).

#### 5.2.3.2 Cooperation between TVET institutions and organisations

##### *5.2.3.2.1 Best practice for collaboration and initiatives*

Responses identified that one best practice for successful TVET systems is that of cooperation among all stakeholders. For example, a MoL employee emphasised "cooperative training is necessary between the labour market and TVTC" (MoL-E1). Another director from MoE argued that "TVTC must make agreements with big companies in Saudi Arabia, such that graduates from the system have a job waiting for them in their sector of specialisation" (MoE-D2). The interviewees stated that collaboration between colleges, trainers, and the private sector would also ensure trainers to stay up-to-date as there would be a continuous exchange of knowledge between industry and training institutions.

In fact, TVTC interviewees emphasised cooperation as something they are actively engage in, as a TVTC director explains: "we have an experiment called "Novice employment training" which has been applied since 2012, which depends on cooperation with companies. For example, if a company needs 100 welders it informs the TVTC of its specific needs and offers 100 job contracts for TVTC graduates who are specifically trained for the job. Also, they share the financial support given to these trainees" (TVTC-D1). Another initiative currently on-going

includes: "sending Saudi workers to the companies of Aramco and SABIC for training who are given certificates at the end of the course. Our policy in the government is to support this project with a huge amount of money" (TVTC-D1). Another TVTC director describes the strategic partnerships with factories in which "factories open a field of practical training and cooperate with us to train students, who are offered employment post-graduating" (TVTC-D8). This is commonly referred to training ending with employment. From the interviews, it was clear that Aramco, one of the largest companies in the KSA, plays a large role in technical and vocational training, and has strong ties with government policy and development planning. The company benefits from s financial incentives from the government, as discussed in Chapter four.

### 5.2.4 Stakeholders' responsibilities for development

This section discusses the roles of various stakeholders, namely the government, TVET centres, trainers, trainees and graduates, in developing the TVET system, and the collaborative relationships between them, which are required to bring about improvements.

***Government***

The interviewees expressed that the critical role of the government in improving the TVET system regards developing clear legislation to control expatriate numbers and consequently reduce indigenous unemployment. For example, a TVTC trainer suggested that the government should "reduce expatriate recruitment and work visas to tackle the indigenous unemployment problem" (TVTC-T1). An HRDF director argued that "the role of government agencies is systematically to legislate to improve minimum wages and influence career growth and benefits" (HRDF-D4). This suggests that government should have oversight over the labour market and training system by introducing policies and regulations, which influence the employment and standard of living of Saudi natives. Moreover, several interviewees remarked on role of governmental authorities in directing students towards a vocational career, which currently they are failing to achieve, as criticised by a TVTC director: "the government claims to direct 38% of secondary stage graduates to technical training but, in fact, the real number does not exceed 10%" (TVTC-D3). Thus, an HRDF director argues that the government "is supposed to encourage enrolment in TVET colleges with advantages and incentives. There must be strict regulations for students to enter universities" (HRDF-D2). It is clear that government support and incentives for TVET workers is needed.

The interviewees also stressed the important role of the government in addressing the link between education skills output and labour-market needs. For example, a MoL employee emphasised that "the biggest responsibility of government authorities is to understand labour-market requirements and accordingly improve the training system to fit these needs" (MoL-E4).

In addition, the interviewees stressed that the government has a role to play in spreading awareness to society about the importance of TVET to the country. For example, a TVTC trainer emphasises the role of government "is to spread awareness and culture about TVET institutions and TVET labour-market needs during intermediate and secondary school" (TVTC-T2).

***TVET centers***

The interviewees highlighted the critical role of TVET centres in developing TVET by addressing the link between the skills obtained by training output and those required by the labour market, as discussed above in Section 5.2.2. For example, a TVTC director argued that: "there must be programmes that are updated and serve vocational and technical specialisations linked to labour-market requirements" (TVTC-D4). As the respondents described, improvements in the link between training and the labour market is best achieved through strategic partnerships that identify and address the skills gap and increase the participation of indigenous trainees in TVET. For example, a TVTC director stresses the role of TVET centres is "to close the skills gaps by implementing strategic partnerships with the private sector to increase practical training" (TVTC-D1).

Many of these types of programmes are already in effect (as discussed above) and there was general support for initiatives which link labour-market needs to education and training.

Moreover, the interviewees stressed the role of TVET centres in creating awareness for TVET, for example a TVTC trainer argued: "improving the view of TVET in Saudi society is a key role of TVET centres. Saudis' minds must be changed" (TVTC-T1). Another TVTC director suggests that: "universities and institutions have to improve the mental image through making employment exhibitions or recruitment conferences" (TVTC-D3).

***Trainers***

Interviewees expressed the role of the trainers is to practice continuous self-development to stay up-to-date with the needs of the labour market. For example, a TVTC trainer emphasises that trainers "must have continuous self-development, run experiments in labour market, and have overview on the outside world" (TVTC-T2). This argument is supported by a MoE director who states: "there must be continuous education or learning and continuous self-training" (MoE-D1). It was also emphasised that trainers should address the link between education skills output and labour-market needs: "trainers must analyse the labour market to identify its needs. Currently many trainers teach theoretically without knowing what is really happening in labour market" (TVTC-T2).

In addition, the interviewees stated that trainers play a key role in motivation of trainees and in changing the negative culture towards TVET. For example, a TVTC director stated that: "trainers play an important role psychologically in motivating trainees and giving them confidence to graduate fully ready to face labor market challenges" (TVTC-D3).

***Trainees***

As for the trainees, there was consensus among the interviewees that their role is to remain motivated and loyal to their chosen vocational path. For example, a MoL director stressed that trainees: "have to believe in TVET and have the passion to work in their field" (MoL-D5). A TVTC director adds that: "they should have desire, seriousness and intention in their specialisations" (TVTC-D6). This was supported by an HRDF director who argued that: "they must have the intention and desire when entering the TVET collages" (HRDF-D2).

***Graduates***

Interviewees perceived the role of graduates to be threefold. First, graduates must engage in continuous self-development. For example, a MoL employee argued that "the role of a TVET graduate is to keep developing their TVET skills even after completion of their studies" (MoL-E2). Second, graduates need to share their knowledge and experiences. Third, graduates could play a role in changing the culture towards TVET.

***Private organisations***

With regards to the role of employers, a TVTC director argued that "there must be connection between TVTC, the MoE and the private sector to create TVET programmes and increase TVET participation within the society" (TVTC-D4). As discussed in the previous section, private

companies should form partnerships with the TVTC and training institutions to create initiatives that benefit all parties by playing a more active role in communicating their needs and in helping TVET institutions to fulfil these needs.

A summary of the six stakeholders and their roles in developing TVET is shown in Figure 5.2.

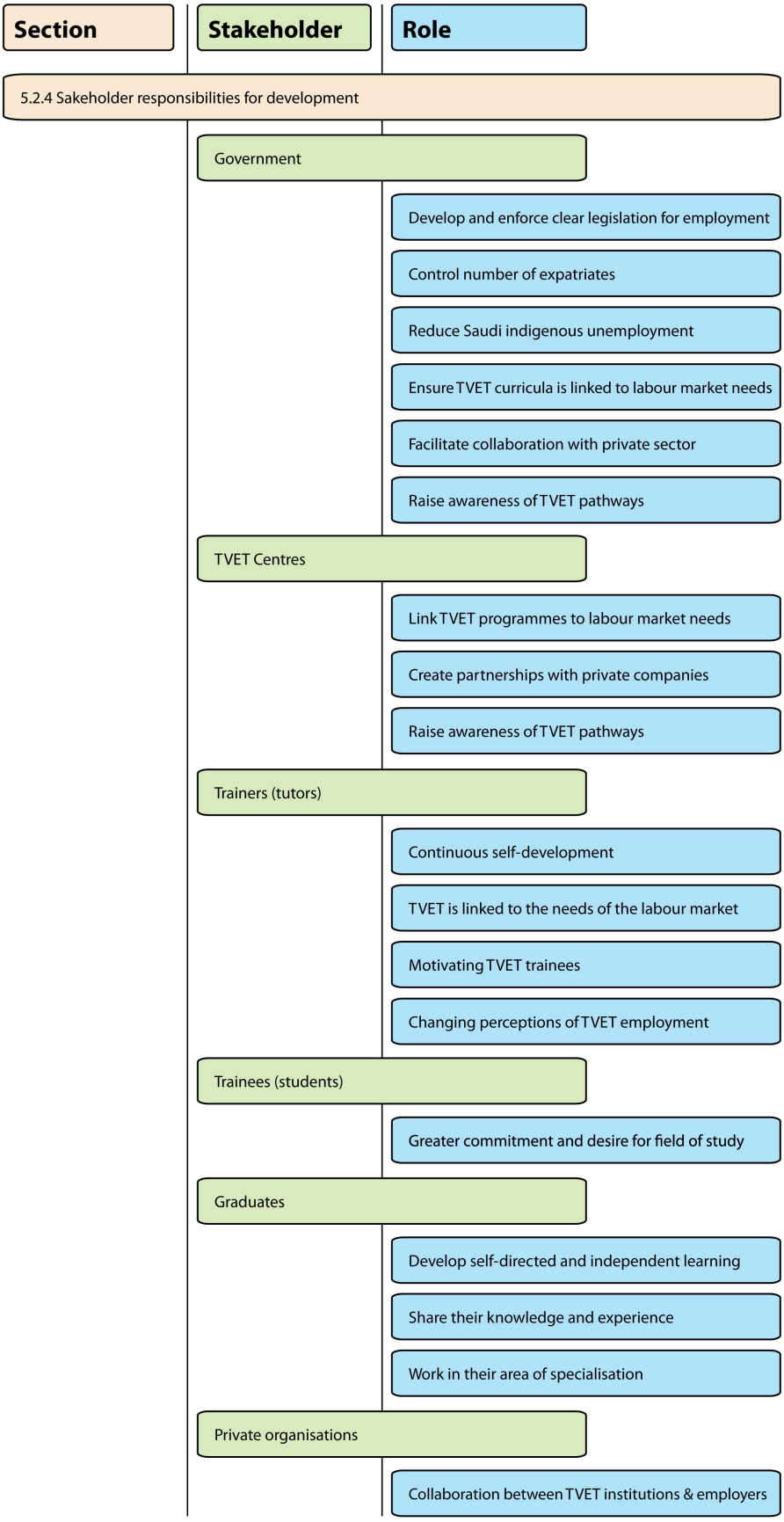



***Figure 5.2: Summary of stakeholders and their responsibilities for development***

### 5.2.5 Suggestions and recommendations for the future

This section outlines the suggestions and recommendations as provided by the interviewees for the future development and improvement of the TVET system to ensure that graduates of the system meet the skills and employment needs of the Saudi labour market. It considers the role of various organisations, the development of training courses and content, the importance of on-the-job and practical training, the need for training incentives, and the wider issues relating to education and culture.

A summary of the themes is given in Figure 5.3.

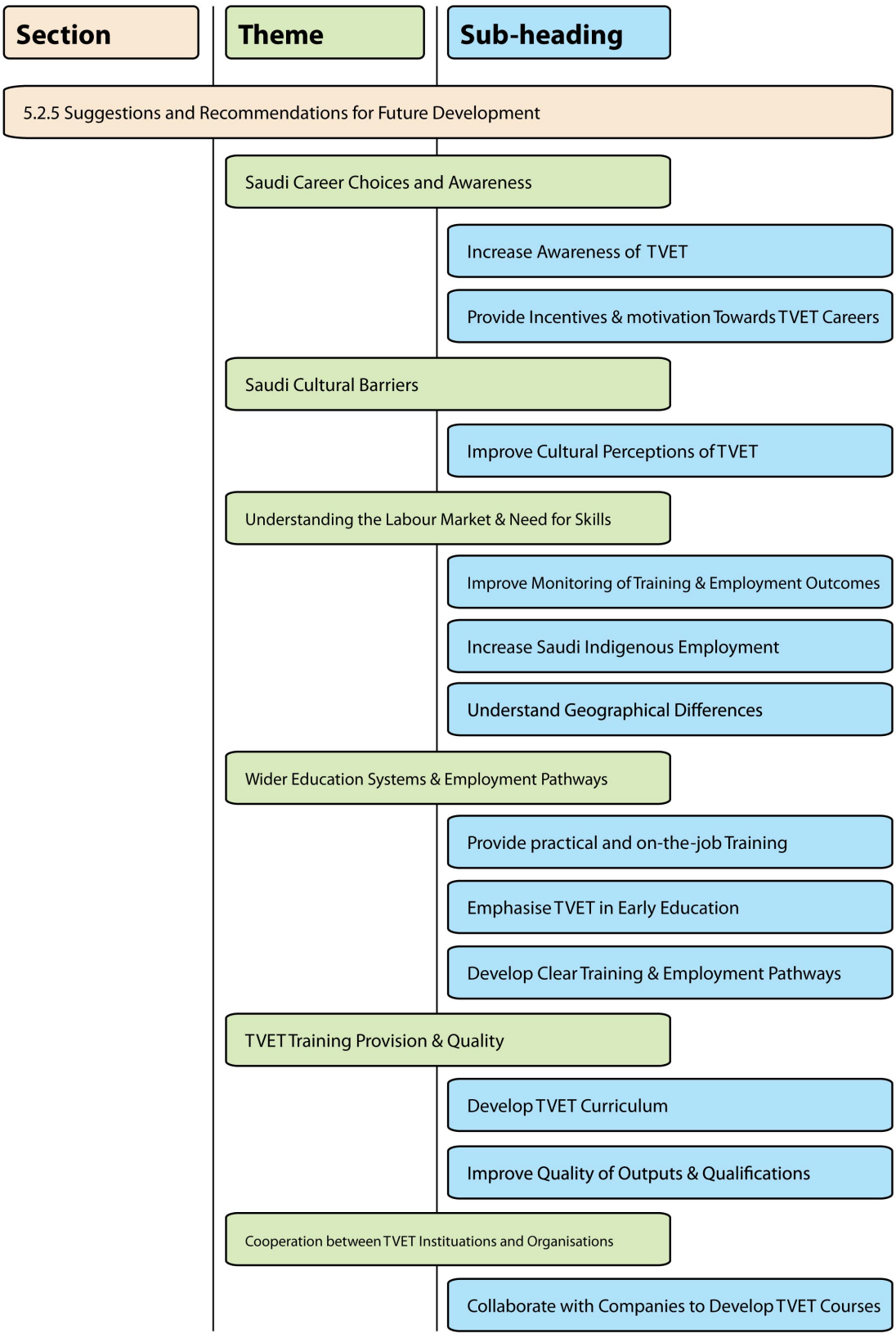



***Figure 5.3: Summary of suggestions and recommendations for the future***

#### 5.2.5.1 Saudi career choices and awareness

##### *5.2.5.1.1 Increase awareness of TVET*

The future impact of TVET was seen to depend on the success of initiatives aimed at changing perceptions, in particular those concerned with addressing the shaming culture regarding vocational workers and work. A TVTC director was critical that "Saudi society does not accept technicians and there is lack of awareness in that matter" (TVTC-D4). Therefore, interviewees stressed the importance of creating awareness of the importance of TVET and vocational work to the country. For example, a TVTC director stressed: "There must be awareness programmes in schools to inform students from a young age about the importance of TVET as well as events and conferences that spread TVET awareness to the general public" (TVTC-D3).

##### *5.2.5.1.2 Provide incentives and motivation towards TVET careers*

Moreover, the respondents recognised that training incentives affect Saudi career choice, thus more should be offered to trainees to encourage them to enter vocational pathways, as the following quote implies: "the TVTC should provide scholarships and improved benefits to vocational and technical trainees and employees" (TVTC-D5).

#### 5.2.5.2 Saudi cultural barriers

##### *5.2.5.2.1 Improve cultural perceptions of TVET*

The role of media and school education are seen by the respondents as vital in changing the negative perception of TVET across society, as indicated by the following: "Media efforts must be united to change society's inferior view of the vocational and technical sector" (TVTC-D3); "Saudi's culture must be changed throughout different educational stages by informing society that vocational works have benefits to society" (HRDF-D1). It is therefore suggested that TVET must play a role not only in providing skills but also in changing Saudi cultural perceptions and increasing Saudi youth's motivation to engage in vocational work.

#### 5.2.5.3 Understanding the labour market and the need for skills

##### *5.2.5.3.1 Improve monitoring of training and employment outcomes*

Many interviewees stressed the importance of good governance through a strong monitoring and control mechanism on all initiatives and programmes to limit manipulation of the system. For example, a TVTC director argued: "Hafiz programme must be connected to TVTC to control

and monitor imaginary jobs because what's happening is that those people receive two salaries, one from Hafiz and the other from an imaginary job and in fact they are sitting at home doing nothing" (TVTC-D5). The Hafiz programme provides welfare to the unemployed and job seekers (see Chapter Four). However, it is possible for people to claim the Hafiz allowance while also registered as employees and therefore to be included in Nitaquat numbers. A MoL director argued for the need for "high supervision on Nitaqat and more control to get the best out of it" (MoL-D5). Another employee supported this argument: "Nitaqat needs to be improved to address the problem of unreal employment" (MoL-E3). An employee from the MoL suggested the creation of "a control body on industrial companies whose mandate is solely to monitor Nitaquat" (MoL-E3).

The interviews again emphasised the concepts of governance, monitoring and benchmarking. For example, an HRDF director argued that it is necessary to "have sectorial councils and government agencies overseeing the labour market" (HRDF-D1). These would provide oversight and regulation of employment and training, as well as data to allow monitoring.
Additionally, the interviews emphasised the concepts of governance, monitoring and benchmarking to enhance the relevance of TVET curricula. For example, an HRDF director argues the need to "have sectorial councils and government agencies overseeing the labour market" (HRDF-D1) which would provide oversight and regulation of employment and training, as well as key data to monitor trainees and graduates.

#### *5.2.5.3.2 Increasing Saudi indigenous employment*

Although financial government support is already in place through the HRDF, which provides half the salary with employers making up the other half, a TVTC director argued for more support: "TVET graduates should be given financial support during the first three years to four yearsof employment, not only the first two years, as a kind of encouragement for graduates to work in vocational jobs as well as to incentivise private sector employers to keep these employees because often companies disqualify these youths after the two years of the government support and re-hire new graduates who would qualify for funding of 50% of their salaries by the HRDF"" (TVTC-D2).

A TVTC director argued that "the MoL encourages companies through the Nitaqat programme. If the company appoints one handicapped worker, this will be taken in consideration as if four citizens are appointed"; the director suggested that "if the same regulations are applied to TVET employees, this will encourage Saudisation" (TVTC-D2).

The commitment of public sector organisations to increasing Saudisation through TVET is required:

> Saudisation in technical and vocational jobs needs extra support. There must be preferential legislation and certain terms for this project. For example, Aramco runs a project with companies that have a significant number of Saudis who work as technicians, who are given preferential treatment in receiving contracts, and there are extra facilities and support for Saudi workers with real desire. (HRDF-D3)

#### *5.2.5.3.3 Understand geographical differences*

Interviewees emphasised that, in order to better accommodate labour-market needs, TVET courses must consider geographical differences because different skills are demanded in different cities throughout the KSA. For example, a TVTC director responded: "We need to do surveys and studies of vocational and technical skills needed in each region around KSA and only provide a TVET system to qualify the skills that matches the labour-market needs for each region" (TVTC-D5).

### 5.2.5.4 Wider education system and employment pathways

#### *5.2.5.4.1 Provide practical and on-the-job training*

One of the critical factors revealed by the interviewees is the importance of curricula to have the right balance of practical and theoretical training. Indeed, the majority of interviewees voiced the opinion that "practical training is more important than theoretical training. The last term of the training programme should therefore include real-life labour-market experience to teach trainees how to deal with the world of work" (TVTC-D3). This is supported by an HRDF director who stated that: "technical graduates must be exposed more to practical training than theoretical training in accordance to their specialisation so that they can be ready for the labour market" (HRDF-D2).

Important initiatives that provide such practical experience highlighted by the interviewees include: "on-the-job training, training that ends with employment in just one year, and the programme of 'your job is your scholarship' (explained in Chapter 4) administered by the MoL" (TVTC-D1).

#### *5.2.5.4.2 Emphasise TVET in early education*

The interviewees argued that TVET should be included at an early stage of general school education in order to increase the awareness and hence significance of TVET certificates. For example, a SSS director argued that "training must begin at an early age" (SSS-D1). This was supported by a MoE director who argued: "equipping secondary schools with vocational workshops, such as in Japan, every secondary school customises practical workshops to train students to as technicians" (MoE-D1). The importance of government support for TVET paths for young students at school was also stated: "the MoE has to provide TVET paths in schools" (TVTC-D5). Finally, interviewees highlighted the need for universities to play a role in directing trainees towards TVET, so that not only the low achieving students enter vocational training.

#### *5.2.5.4.3 Develop clear training and Employment Pathways*

Although the interviewees highlighted that TVET can play a very important role in equipping graduates with the necessary skillset to succeed in the labour market, they claimed that the full impact of TVET on the Saudi participation rate would only be felt if graduates continue to work in positions that match their area of study. For example, an HRDF director argued that "graduates of technical sector must work in the same specialisation. The TVTC says that although all its graduates are employees, overtime each one alters their field" (HRDF-D4). The desire for Saudi graduates to change their career mid-way has been is linked by the respondents to Saudi's negative cultural perception of vocational work and hence their lack of motivation to continue working in the sector as well as low incentives offered to trainees and graduates, as explained previously, thus it was suggested that "certificates and policy of incentives must be modified to diploma holders" (HRDF-D3) to reduce the Saudi turnover rate in the vocational sector.

### 5.2.5.5 TVET provision and quality

#### *5.2.5.5.1 Develop TVET curriculum*

The interviewees indicated the importance of "analysing successful international TVET training systems and comparing them with the system currently in place in KSA and adopting the best practices used internationally" (HRDF-D2). For example, the newly adopted qualification system was praised by the interviewees as a good practice, as described by an SSS director: "The (PEEC) Public Evaluation Education Centre began in 2017 and was designed to be a similar system to that in Britain where persons who study in a vocational institute earn credits which count towards a standardised Education and Qualification Framework (EQF) level. The EQF is an international standard for assessing education level and how different qualifications

compare to each other in terms of the skills required" (SSS-D1). Nevertheless, the majority of respondents emphasised that the adoption of international best practices needs to be done carefully considering the unique context of Saudi Arabia hence the view that Saudi Arabia needs a custom-made TVET system. For example, a MoL director argued "against following other countries' TVET system but rather to adopt our own TVET system to accommodate the context in Saudi Arabia" (MoL-E3).

#### *5.2.5.5.2 Improve quality of outputs and qualifications*

The interviews clearly attested the importance of the TVTC to focus on the quality of training and knowledge transfer rather than on the quantity of graduates, as stipulated by a TVTC director: "TVTC must concentrate more on the quality of outputs than on the quantity of graduates" (TVTC-D6). This would therefore require the TVTC to reassess its targets and benchmark criteria to be geared towards specific standards set by the labour market.

### 5.2.5.6 Cooperation between TVET institutions and organisations

#### *5.2.5.6.1 Collaborate with companies to develop TVET courses*

As discussed above, the interviews show that the current TVET system fails to deliver graduates that meet labour-market needs. This gap between education and practice was attributed to a fundamental disconnect in TVET authorities' understanding of what the labour-market requires and expects of graduates. For example, an HRDF director argued that "there must be a connection between training programmes and labour-market requirements and skills which can be achieved by conducting a longitudinal study to better understand labour-market requirements" Moreover, there must be partnerships with private companies and the TVTC to jointly develop curricula tailor-made to their needs" (HRDF-D1). The majority of the interviewees confirmed the need for cooperation among different organisations, sectors and regions to work together to develop a system that is well integrated and serves the needs of the labour market. This view was demonstrated by the following quotes: "a successful TVET system must have in advance a clear strategy to know which skills and specialisations are required in the labour market as defined by employers" (HRDF-D1); "There is a triangle; its sides are government sector, private sector and the trainee or job applicant. If it is not fully integrated it will not work and inside this triangle is the system, including training programmes, the curriculum, the structure and incentives" (HRDF-D3).

In particular, it was highlighted that TVET graduates and university graduates are not offered equal opportunities, as the following suggests: “we know that university graduates go to big companies like SABEC and Aramco, and TVET graduates go to small companies where they don’t receive an equal amount of training as the big companies, so training centres must cooperate with small entities in particular to train their workers” (MoE-D1). The notion that small and medium enterprises could greatly benefit from a strategic relationship with the TVTC, who could provide them with free training, was also discussed by a TVTC director: “we must connect the small and medium private sector to TVTC to provide training ending with employment despite its high cost” (TVTC-D6).

### 5.2.6 Summary

This section has focused on interview responses from government organisations. It has identified several common themes and sub-themes among respondents, which emerged in response to different question topics. These main themes and their sub-themes have been presented throughout this section in the corresponding figures.

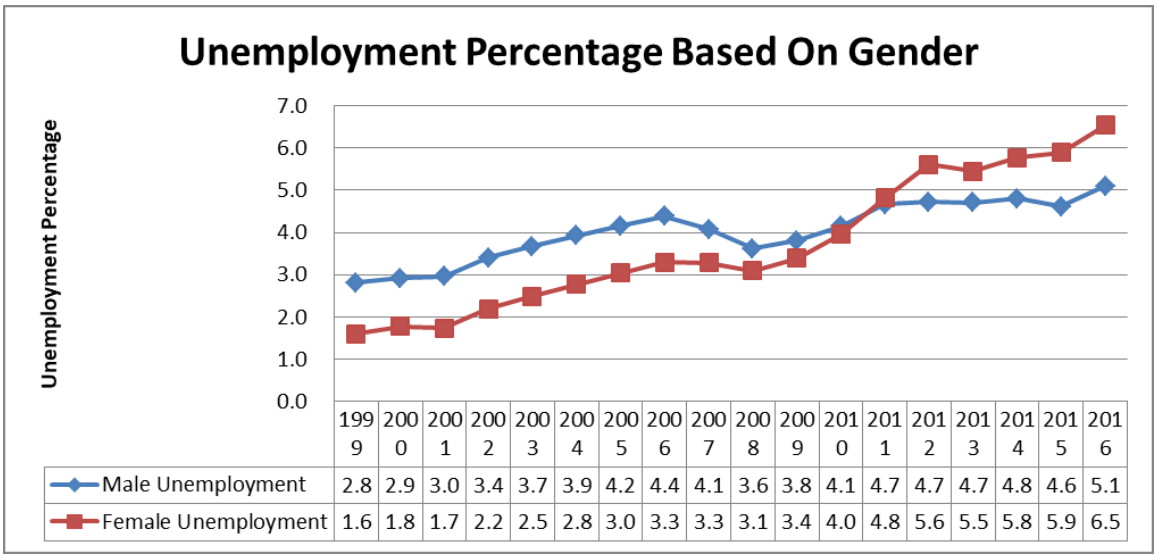
## 5.3 Data analysis of technical girls' college interviews

This section focuses on the responses of ten interviewees from the TGC. It provides a specific insight into TVET and female employment in Saudi Arabia. The TGC interviewees are listed in Table 5.3.

Table 5.3: Technical girls' college interviewees and their roles

| Interviewee reference | Position | Interviewee reference | Position |
|---|---|---|---|
| TGC-D1 | Director – College Dean | TGC-T1 | Employment Coordinator & BA Trainer |
| TGC-D2 | General Manager for Trainee Services | TGC-T2 | Trainer in Sewing Technology |
| TGC-D3 | Assistant to General Manager for Private Training | TGC-T3 | Employment Coordinator |
| TGC-L1 | Student in Clothing Design & Production | TGC-T4 | Trainer in Accounting |
| TGC-L2 | Student in Accounting | | |
| TGC-L3 | Student in Design & Clothes Production | | |

There are several challenges relating to the training and employment of women. The analysis in this section focuses on the issue of female unemployment and the factors responsible for it. Figure 5.4 depicts the seriousness of the issue of female unemployment figures. From 1999 to 2016, ever more women became unemployed, while unemployment for male Saudis is low by comparison. In 1999, unemployment was higher among Saudi men (2.8%) than among Saudi women (1.6%) (General Authority for Statistics, KSA, 2016). By 2010–11, male and female unemployment figures were similar. Since 2012, however, unemployment among Saudi women has increased significantly compared to male unemployment.

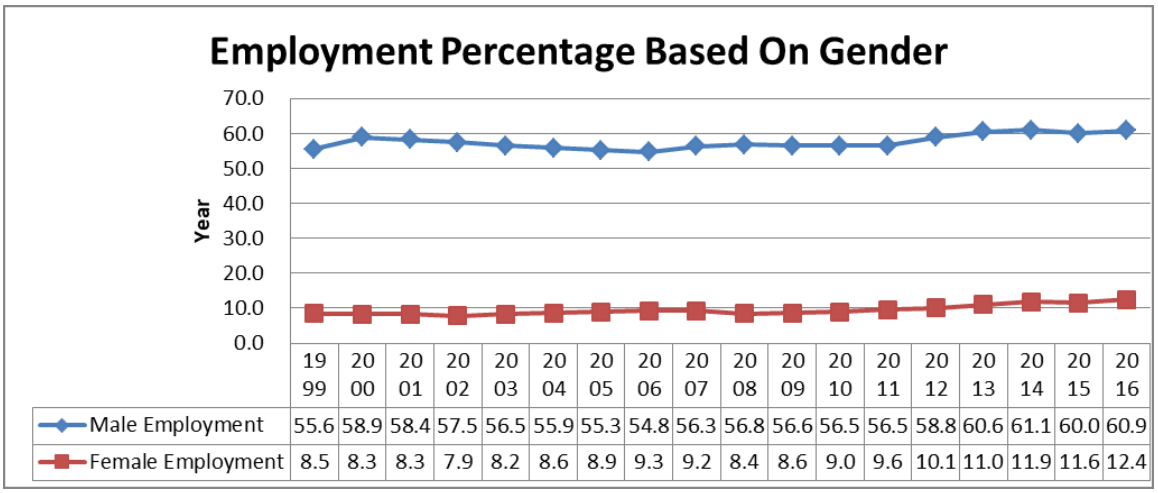



| | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Male Unemployment | 2.8 | 2.9 | 3.0 | 3.4 | 3.7 | 3.9 | 4.2 | 4.4 | 4.1 | 3.6 | 3.8 | 4.1 | 4.7 | 4.7 | 4.7 | 4.8 | 4.6 | 5.1 |
| Female Unemployment | 1.6 | 1.8 | 1.7 | 2.2 | 2.5 | 2.8 | 3.0 | 3.3 | 3.3 | 3.1 | 3.4 | 4.0 | 4.8 | 5.6 | 5.5 | 5.8 | 5.9 | 6.5 |

***Figure 5.4: Unemployment Percentage Based On Gender***

*Source: www.stats.gov.sa, 2017*

Since 1999 the number of women who want to work has gradually increased. In fact, many more women are not working, but are not seeking employment. Therefore, as more women enter the labour market and look for employment, the percentage of people unemployed will apply to a larger proportion of the population. The graph below shows the employment levels among the male and female indigenous Saudi population between 1999 and 2016. The graph in Figure 5.5 shows that women have constantly been a very small percentage of the labour force compared to Saudi men. From 1999 to 2016 the Saudi female employment rate increased from 8.5% to 12.4% (i.e. an increase of 3.9%) while the employment figures for Saudi men increased from 55.6% to 60.9% (i.e. an increase of 5.3%).




| | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Male Employment | 55.6 | 58.9 | 58.4 | 57.5 | 56.5 | 55.9 | 55.3 | 54.8 | 56.3 | 56.8 | 56.6 | 56.5 | 56.5 | 58.8 | 60.6 | 61.1 | 60.0 | 60.9 |
| Female Employment | 8.5 | 8.3 | 8.3 | 7.9 | 8.2 | 8.6 | 8.9 | 9.3 | 9.2 | 8.4 | 8.6 | 9.0 | 9.6 | 10.1 | 11.0 | 11.9 | 11.6 | 12.4 |

***Figure 5.5: Employment Percentage Based On Gender***

*Source: www.stats.gov.sa, 2017*

An overview of the structure of the analysis section for Saudi women in TVET is shown in Figure 5.6.

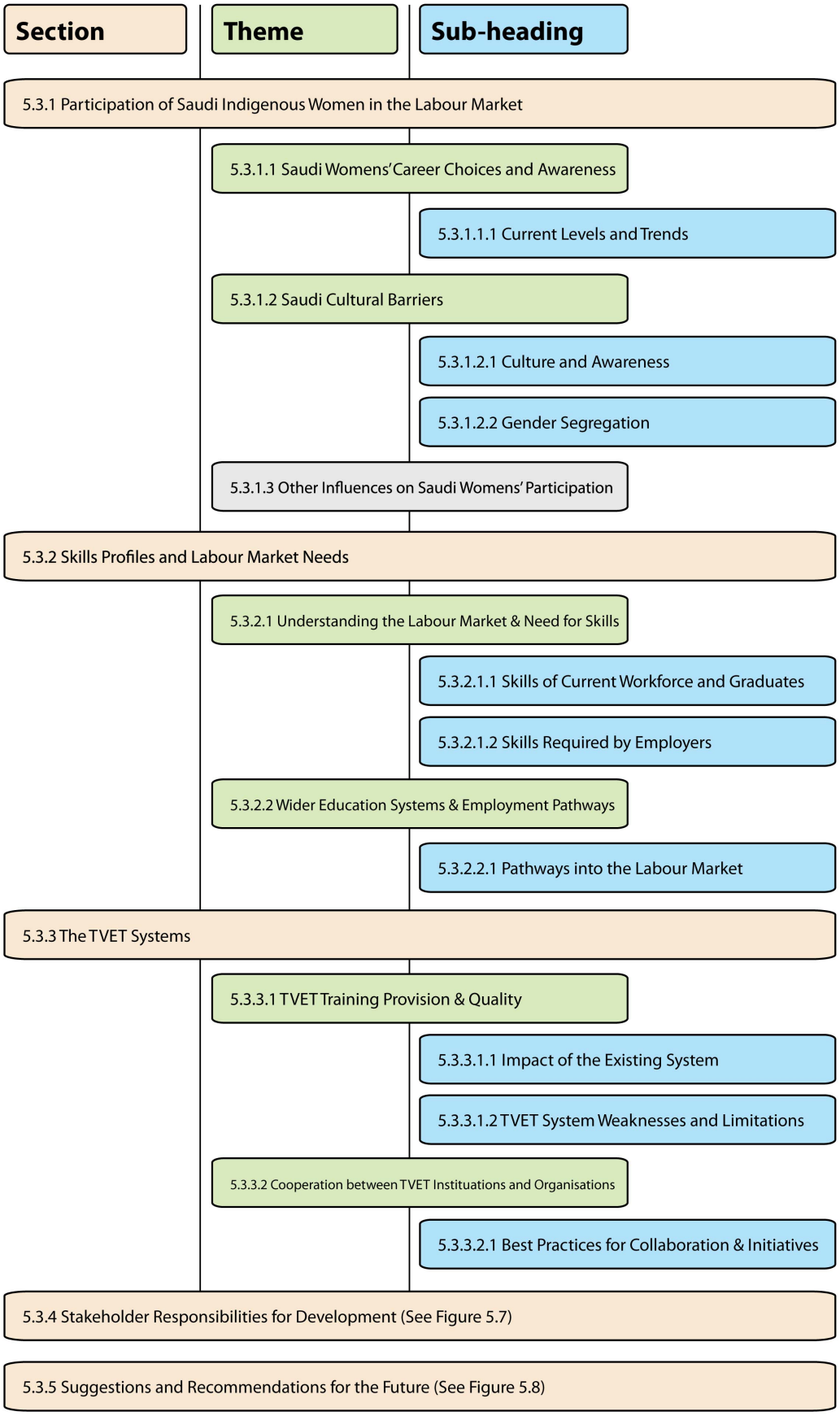



***Figure 5.6: Qualitative analysis structure, including sections and themes***

### 5.3.1 Participation of Saudi indigenous women in the labour market

This section focuses on factors influencing the current level of participation of Saudi women in the TVET and job market and the trends relating to employment, training and participation. It includes two main themes that were identified through analysis: *Saudi awareness and career choices*; and *Saudi cultural barriers.*

#### 5.3.1.1 Saudi women's career choices and awareness

***5.3.1.1.1 Current levels and trends***

There was consensus among the interviewees on the importance of Saudi women's participation in the labour market, and this participation is currently weak. The interviewees highlighted that society's perception and job requirements are the main factors behind the lack of Saudi women's participation in vocational and technical jobs. For example, a TGC director highlighted a "the lack of participation of Saudi women in TVET is due to the rejection of these types of jobs from the community because of numerous obstacles for women (e.g. lack of transportation as women can't drive, low income, long working hours, which reduces the time spent at home in women's traditional role as homemaker, and society's bad perception of vocational jobs)" (TGC-D1).

Another director highlighted that "finding places for girls' to work is the most difficult problem we faced. For example, girls who graduated from the make-up field are unable to find work" (TVTC-D8). This is partly due to the expectations of those who take beauty courses – they hope to start a business rather than to work for an employer – and partly due to social perceptions of this kind of work, which may mean that families discourage women from working in this field. This was confirmed by a TGC trainee who outlined the reasons for low Saudi women's participation in TVET and related jobs: "low status position, lack of perception of high value and the nature of vocational jobs" (TGC-L1).

In relation to the public versus private sector, the interviewees highlighted the lack of employment opportunities for Saudi women. For example, a TGC trainer emphasised the "lack of employment opportunities in the private sector for women" (TGC-T3).

#### 5.3.1.2 Saudi cultural barriers

##### *5.3.1.2.1 Culture and awareness*

Many interviewees mentioned the extent of Saudi cultural barriers and their impact on Saudi women's involvement in TVET and related jobs. A trainer commented: "as a conservative society, some families refuse the idea of letting their daughters work in beauty or a design salon because of the perception of bad behavioural and moral influence" (TGC-T3). This was confirmed by another TGC trainer who explained: there is a considerable lack of female participation due to society's negative perceptions and lack of acceptance of vocational jobs. For example, beauty jobs: as a conservative society, parents will not let their daughters work till a late time and with a low income and long working hours, which results in Saudi women not being employed in beauty salons. (TGC-T1)

Finally, a learner reiterates the challenges endured by female natives in relation to work in vocational and technical jobs: "job opportunities for ladies are limited or sensitive; for example, some families are not comfortable letting their daughters work in manufacturing because of mixing [of men and women]" (TGC-L1).

##### *5.3.1.2.2 Gender segregation*

Gender segregation in the KSA influenced women's participation in the labour market since males are provided with significantly more training and job opportunities than their female counterparts. A TVTC director, however, stressed that the partnership with the private sector "is for males only yet not for females because TVTC didn't receive applications from the private sector to form strategic partnership for females" (TVTC-D4). Moreover, a TGC trainee argued that "there is a programme called equivalent to a bachelor's degree that offers evening training classes, which allows employees to continue working while simultaneously improving their skill level and receiving a higher degree but it is only available to males and not females" (TGC-L1).

#### 5.3.1.3 Other influences on Saudi participation

Interviewees explained that another reason for reduced participation rate of Saudi women in the workforce is due to the long-standing stereotype among private employers that Saudis

have a poor work ethic and commitment to vocational and technical jobs. For example, a TGC trainer argued that "employers can't trust Saudi employees' commitment due to low wages and an unsupportive work environment, and trust they expatriates more" (TGC-T1). This issue was recognised by other interviewees in different governmental organisations for Saudis in general, not just Saudi women. The preference of private sector employers to hire expatriates was confirmed by another trainer: "employers prefer expatriates due to lower salary and higher commitment to work regulations than Saudi indigenous" (TGC-T2).

Financial influences impact Saudi women's participation in the labour market, as stated by trainee: "trainees have low confidence to practice their acquired skills successfully in real job life especially since they receive limited financial support" (TGC-L2). A TVTC director suggests "it is important to encourage girls to work in the field by giving them money if they want to start a project" (TVTC-D8).

.

### 5.3.2 Skill profiles and labour-market needs

This section focuses on the current skills profiles and the availability of skills among Saudi women, as well as the need for TVET skills in the labour market, and hence whether a skills gap exists. It includes two main themes identified through analysis: *Understanding the labour market and need for skills*; and *Wider education systems and employment pathways.*

#### 5.3.2.1 Understanding the labour market and need for skills

##### *5.3.2.1.1 Skills of current workforce and graduates*

In relation to the degree at which the current skill level of Saudi women matches the needs of the labour market, some interviewees opined that skills are highly matched, as argued by a TGC trainer: "high matching of women's skills and required skills in the labour market" (TGC-T1). A TGC director explained that

> the skills of Saudi women workers match the skills needed in vocational and technical jobs because the curriculum is a coordinated effort between TVET colleges, labour markets and out-sourcing expertise; for example, training in the cosmetology department consists of the cooperation between a French cosmetic college, which performs the training and gather businesswomen in cosmetology provide consulting.

> Similarly, technical support department collaborates with Microsoft which means technical support students are tested by Microsoft itself. (TGC-D1)

Another TGC trainer suggested that "approximately 70% of Saudi women's skills match the skills needed in vocational/technical jobs. While the remaining 30% must be acquired through work experience and on-the-job training" (TGC-T2). This was supported by another trainer: "70% of Saudi women's skills match the skills needed in vocational technical jobs and 30% continue by taking training courses and work experience" (TGC-T4). The responses identified that practical training and experience are vital to ensure trainees have the full set of skills required by the labour market.

On the other hand, a director explained that: "the extent to which the skills of Saudi women workers match the skills needed in vocational/technical jobs depends on the type of vocation. For example, there are skills gaps in plumbing, carpentry, electrician, and hostelry. While in the vocations of beauty therapy and tailoring skills are excellent" (TGC-D3). The difference is due to unavailable training degrees for women in the specialisations of plumbing, carpentry, electrician, and hospitality.

#### *5.3.2.1.2 Skills required by employers*

The interviewees confirmed the importance of having strong links between training and education authorities and corporations in order to ensure that TVET graduates have the skillset demanded by the labour market Indeed, as mentioned above, several cooperative programmes already exist. For example, a TGC director commented: "We run a programme called 'production training', which is a contract between TVET colleges and the private sector which teaches trainees how to produce a specific product under the capability and supervision of the TVET college" (TGC-D2).

### 5.3.2.2 Wider education system and employment pathways

#### *5.3.2.2.1 Pathways into the labour market*

Interviewees emphasised the importance of improving the public and job market perception and acceptance of the TVET diploma so that it is considered equally valuable as a university degree for specific vocations, as a TGC trainer explained: "some employers do not consider graduates from TVET due to the degree level which is just diploma rather than a university

degree which shows that employers do not value the TVET diploma so graduates are discriminated against and are not offered as many opportunities are university graduates" (TGC-T1).

In order to reform the view of TVET, the interviewees explained that TVET-type courses have recently been added to the general education curriculum so as to increase youth's exposure and awareness of the field, as the following quotes explain: "this year TVET was introduced during primary school level where primary school students attend TVET classes once a week" (TGC-L3); "a programme had started this year to qualify secondary students vocationally. This initiative invites secondary students to attend TVET colleges for one full day a week to learn a vocation and after secondary level if a student decides to continue with vocational training they can transfer their credits for the hours studied during the last year of secondary school" (TGC-D1). Indeed, increasing the mobility between general education and TVET in this way will help to reduce the stigma of TVET and provide it with greater parity with general education as it will create an interconnection between the two systems, as opposed to the clear-cut division assumed between the two pathways.

### 5.3.3 The TVET system

This section focuses on the current women's TVET system and the methods used to provide vocational skills development and training. It considers the impact of current systems, institutions and initiatives, and it explores their strengths, weaknesses and best practices. It includes two main themes identified through analysis: *TVET provision and quality*; and *Cooperation between TVET institutions and organisations*.

#### 5.3.3.1 TVET provision and quality

##### *5.3.3.1.1 Impact of the existing system*

The existing TVET courses available to women system was described by a TGC director as follows: "vocational TGCs have five specialties for two years: beauty (of which there are two paths: skin and hair), design and clothes production (of which there are two paths: sewing and drawing), technical support, accounting, and office administration. The curriculum is carefully planned to ensure that graduates are labour-market ready. One way is to balance practical

and theoretical training. For example, beauty, design and clothes production and technical support fields consist of two-year training programmes throughout which practical training is offered at college, while in the last six months trainees are given real-life work experience outside the college. This system has proven to be successful in preparing indigenous women to take part in labour market" (TGC-D2).

Similarly, another trainer explained that "the tertiary TVET system is viewed negatively due to its short time (two years) where students can't absorb too much information in a very short time and it is very stressful with no breaks. Whereas the dual TVET system has is viewed positively (two years and six months). Both systems are almost similar in curriculum/modules and practice; the only difference is the duration of the TVET system (educated how to be knowledgeable in vocational and technical specialty and practice in the last semester)" (TGC-T4).

The consensus among the interviewees was that the current TVET system is effective at providing outputs with the necessary skills to enter the workforce. However, it should be noted that an element of bias might exist in this viewpoint since all responses are from a women college that provides vocational and technical courses.

#### *5.3.3.1.2 TVET system weaknesses and limitations*

According to the interviewees the greatest limitation to the female TVET system concerns the limited capacity available, as the following implies: "The issue here is that the capacity of TVET colleges is too low" (TGC-D1); "There aren't enough vocational and technical specialisations offered in women colleges" (TGC-D3).

Another weakness mentioned by the TGC respondents is the lack of qualified trainers: "there are not enough specialised Saudi trainers who can teach/transfer required skills to Saudi students" (TGC-D2). Moreover, a TGC trainee commented that "trainers demotivate trainees when they talk about weaknesses or difficulties they might face when they go into the labour market. For example, trainers mention that there is only opportunity to work in tailoring shops entails very long working hours and warns that if they are not flexible or willing to put in the time then they should not waste their time training. It is also common for trainers to tell trainees that they are in a vocational pathway because they are unsuccessful" (TGC-L1).

Other interviewees explained that the majority of trainees enter the vocational pathway as a last option, after having been rejected from higher general education. The result of this is that

trainees lack the motivation and desire to train, creating a negative environment in training colleges and hindering the progress of more determined students, as the following quote alludes: "some trainees are forced to register in a certain specialty without having the conviction or desire to study it just because they were not accepted from their first choice" (TGC-L1). This is confirmed by a TGC trainer: "About 80% of applicants enter TVET because they were not accepted at university, so it is not because they want to enter TVET" (TGC-T4).
The TGC trainer explained that another weakness of the TVET system is the discrimination against age: "only students within a certain age group (between 17 and 21) are allowed to apply to TVET institutes, thus this policy limits older women from participating in TVET irrespective of their desire or competence level. From my point of view, they should keep it open to everyone because we are here to teach vocations not higher education" (TGC-T4).

#### 5.3.3.2 Cooperation between TVET institutions and organisations

##### *5.3.3.2.1 Best practice for collaboration and initiatives*

The best practice outlined by the interviewees to improve the TVET system for women is that of cooperation between training authorities and industry partners (TGC-T2; TGC-T4), as expressed in the following quote: "training centres must create a learning and training environment similar to the labour-market environment, for example, to provide similar equipment as that used by industry. To achieve this, cooperation between TVET colleges and labour market is essential" (TGC-T4).

Additionally, a trainer described a best practice provided by the TVTC in collaboration with HRDF and the MoE that has proven to have a positive impact on Saudi women workers: "The HRDF offers women with the opportunity for self-study through a special website in which lectures are uploaded allowing women to study at home. Students can then discuss what they understood or misunderstood with tutors. This is especially helpful to women as it eliminates several challenges they must overcome daily such as gender-mixed environments, transportation to-and-from college, and allows for simpler home-study balance" (TGC-T3).

### 5.3.4 Stakeholders' responsibilities for development

This section discusses the roles of various stakeholders in developing the women's TVET system. This section also explores the roles of actors and institutions, and their collaborative relationships, which are required to implement changes and bring about improvements. Figure 5.7 summarises the five stakeholders and their roles in developing TVET.

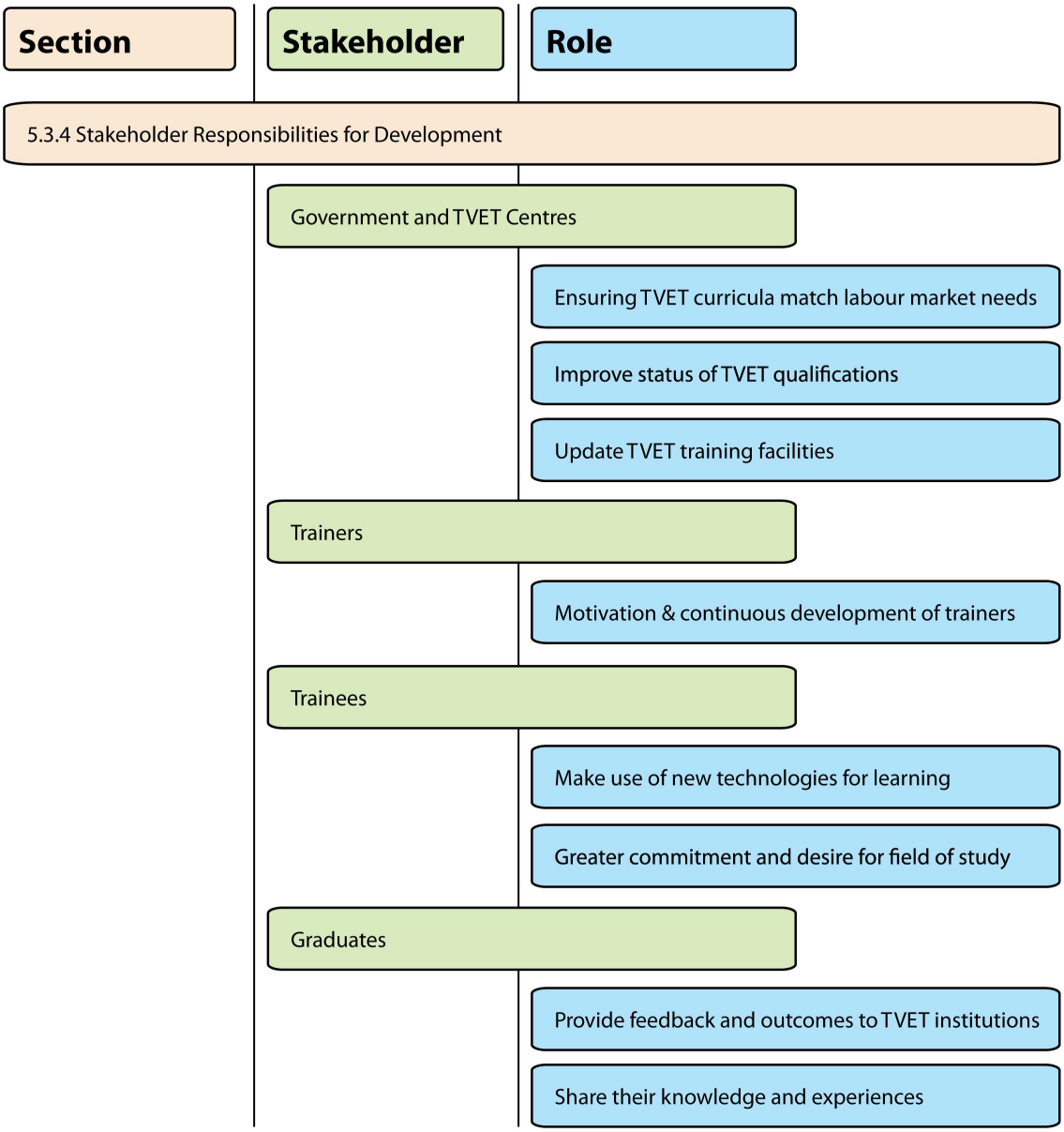



***Figure 5.7: Summary of stakeholders and their responsibilities for development***

***Government and TVET centers***

Interviewees at the TGC highlighted the connection between the operations of TVET centres and the role of the government, thus the roles of these two stakeholders are addressed together. The interviewees confirmed the role of these entities in ensuring that the skillset of TVET graduates match the needs of the labour market. For example, a TGC director explains that: "governmental authorities and TVET centres must conduct research studies on labour-market requirements and keep up-to-date with labour-market changes and developments" (TGC-D1). Related to this, another response stressed the role of TVET centres in providing updated training facilities: "the role of TVET centres is to provide up-to-date learning and training facilities" (TGC-L2). This suggests that the current standard is not high enough and could be improved.

In addition, the interviewees confirmed the role of government and TVET centres to in maintaining proper governance of training through monitoring and assessment and "follow ups with trainees' progression" (TGC-L1). Finally, a learner emphasised the role of government in creating legislation that promotes jobs for indigenous women: "the government must provide more job opportunities for women in public sector" (TGC-L2).

***Trainers***

The interviewees ascertained that the role of trainers is continuous professional development. For example, a TGC director argued the need for trainers to "keep up to date of all changes and improvements in the industry in which they specialise" (TGC-D1). This is supported by a TGC trainer who suggested that trainers must "keep taking development training courses" (TGC-T1). As well as keeping their knowledge current to any industry changes, the respondents stated that trainers have the role to: "identify what skills are needed by the labour market so as to be able to qualify and transfer relevant knowledge to TVET students" (TGC-T2).

***Trainees***

As the interviews demonstrate, the role of trainees is vital to the success of TVET in addressing skills mismatch and unemployment among indigenous women. In particular, it was stated that trainees need to be committed and motivated to carry through their training to the best of their ability in order to reap greatest benefits to themselves and Saudi society, as the following implies: "trainees must enter the field with the desire and passion to learn about their specialty in order to succeed. They must consider the diploma as only the first step to gaining

proficiency in a specific field and commit to continuing their education post-graduation and to work hard to learn further/extra knowledge" (TGC-T1). Another TGC learner stresses the need for trainees "to be committed to her studies and work hard" (TGC-L1). A TGC director argued that trainees should "accept new technologies for training such as the training-at-home website provided by HRDF" (TGC-D1).

***Graduates***

The role of graduates is primarily to provide knowledge transfer to their colleagues and feedback to allow for system improvements. For example, a TGC director stressed the need for graduates to "discuss their real experience in labour markets and what difficulties they are facing due to gaps between the skills learned at TVET colleges and those required in labour market" (TGC-D1). This is supported by a TGC trainer who stated that graduates must: "transfer their experience and benefits of what they have learned to people" (TGC-L1).

### 5.3.5 Suggestions and recommendations for the future

This section provides suggestions and recommendations for future development and improvement of the women's TVET system so that it meets the skills and employment needs of the Saudi women's labour market. It considers the role of various organisations, the development of training courses and content, the need for on-the-job and practical training, the need for training incentives, and wider issues relating to education and culture.

This section is organised according to the six themes identified in the earlier sections of this chapter. A summary of these themes and the subheadings used is given in Figure 5.8.

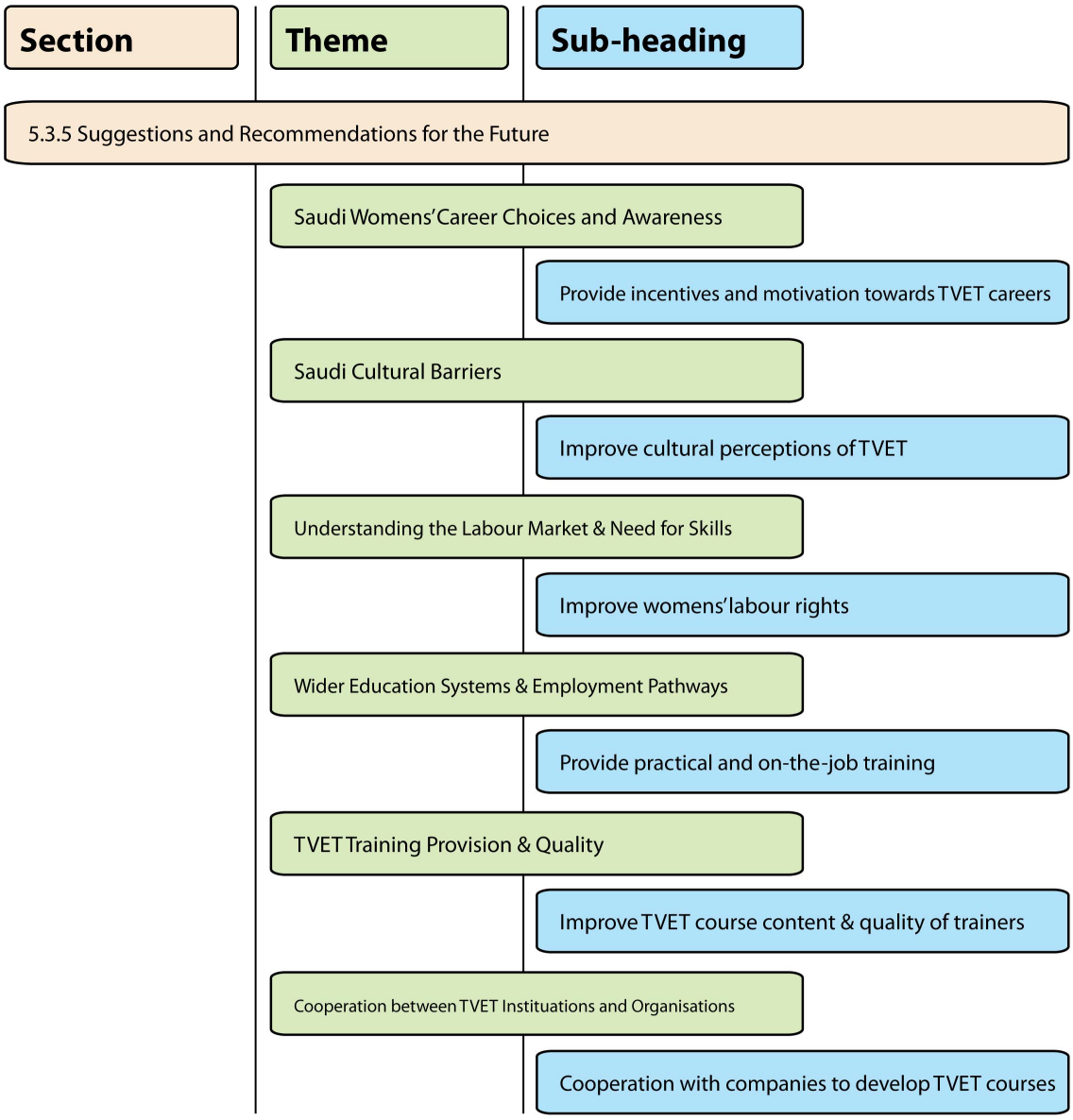



***Figure 5.8: Summary of suggestions and recommendations for the future***

### 5.3.5.1 Saudi women's career choices and awareness

#### *5.3.5.1.1 Provide Incentives and motivation towards TVET careers*

This requires the need to enhance Saudi society's perception of TVET in order to increase the number of females deciding to enter TVET as hence a vocational career. For example, a TGC

trainer recommended "it is important to improve the awareness of TVET at all levels among Saudi society (e.g. families, schools)" (TGC-T2).

Other interviewees discussed how family and peer pressures strongly influence women's career choices thus it was suggested that: "parents must be encouraged to be more flexible in allowing their daughters to work freely in the vocational field" (TGC-L2). It was emphasised that increasing the awareness of TVET would help change the mind-set of parents.

Similarly, the respondents claimed that employers need to be better informed about the TVET system and its graduates. The idea proposed is that as greater attention and significance is given to this pathway, the less will be the stigma of the TVET certificate as second rate to a university degree, and consequently TVET graduates will be provided with significantly more employment opportunities. This is explained by a TGC trainer: "employers must be more informed about graduates of technical vocational college for females and males because some employers are not considering these graduates as suitable for employment as they perceive the diploma degree to be inferior to a university degree" (TGC-T1).

Suggestions off ways to improve awareness included: "arranging for visits to training government agencies and the private sectors to spread and educate people about TVET, and to establish or contribute to forums about TVET. For example, last year a forum was held in Granada centre where we presented and sold products made by TVET graduates though social media advertising, which demonstrate their ability to the wider public and employers." (TGC-D1). Additionally, it was suggested to "inform the Saudi community about TVET colleges by highlighting positive case studies of successful graduates and trainees" (TGC-L1), as well as to "start public relations and advertising programmes through social communication/ media to improve and change the bad image of TVET" (TGC-D1).

#### 5.3.5.2 Saudi cultural barriers

##### *5.3.5.2.1 Improve cultural perceptions of TVET*

The interviewees confirmed the importance of enhance cultural perceptions of TVET and change the prevalent "negative image of TVET among KSA society" (TGC-T2). In addition to increasing awareness, a TGC director who suggested that the numerous obstacles faced by women which include "long working hours in the private sector and lack of affordable

childcare and transportation, can be overcome by providing jobs for women where she can work from home legally in a way that secures he rights of both the producer and consumer" (TGC-D2).

It was noted by the interviewees that changes in Saudi culture are needed in particular for women who suffer from numerous adversities that hinder their employment opportunities. For example, it was stated that: "it should be required for TVET colleges and employers to provide childcare/ nursery and means of transportation facility in order to increase women employability and to attract more applicants to TVET colleges" (TGC-L1).

Finally, some interviewees mentioned that women are generally viewed as inferior and less adept as men in the work environment, thus they are often harshly discriminated. They explained that such discrimination starts at school and continues to university and training as women are not offered the same opportunities to study as men in the belief that they are not equipped for certain jobs.

#### 5.3.5.3 Understanding the labour market and the need for skills

***5.3.5.3.1. Improve women labour rights:***

Interviewees highlighted initiatives that have recently been made by the government to improve the participation rate of women in the workforce, such as the new law for women's rights, which aims to increase job opportunities for women as outlined in Chapter Four, as discussed by a TGC director: "the MoL announced laws to improve female employment rights and working conditions in the private sector" (TGC-D3). Despite this undoubtedly positive first step, some interviewees reiterated that more needs to be done to empower women and encourage them to enter the labour market by making them feel more comfortable and confident in their jobs, as the following indicates: "the government needs to improve job rights for women such as improved incentives and providing a good work environment. This includes suitable working hours, job security, childcare and social insurance" (TGC-D2). A TGC trainer added: "the minimum wage rate should be increased, as currently employers pay TVET graduates 2000SR monthly while Hafez subsidizes the unemployed for 2000SR monthly so Saudi youth prefer to stay unemployed as there lacks the financial incentive to work are the prevailing minimum wage rate" (TGC-T1). Another TGC director argues that "states have to

expand job opportunities for women such as, feminization law in shops" (TGC-D2), as explained in Chapter Four.

#### 5.3.5.4 Wider education system and employment pathways

##### *5.3.5.4.1 Provide practical and on-the-job training*

Interviewees suggested enhancing practical training and on-the-job training to improve the TVET curriculum, as the following explains: "more on-the-job training will improve the training of TVET students. This will help to increase the value of TVET and equate diploma graduates with university graduates. As a result, TVET graduates will be offered the job opportunities which will improve the attractiveness of TVET among Saudis" (TGC-L1). Moreover, the interviewees stressed the importance of balancing practical and theoretical training by "allowing vocational and technical trainees to practice inside and outside of TVET colleges in order to acquire the necessary technical, communication, and behavioural skills" (TGC-T2). It was also recommended to develop "more TVET ending with employment programmes as these motivate trainees to work hard to get the job opportunity" (TGC-L1). A TGC director also mentioned that the need to "introduce short specialised professional vocational courses for people already working that need to improve on or acquire new skills" (TGC-D2).

Other suggested improvements to the TVET curriculum included: "to increase the capacity of TVET colleges which will accordingly boost the supply of skilled graduates entering the workforce. The length of training programmes should also be increased and a greater variety of specialisations must be offered, such as photography, cooking etc. TVET centers must be equipped with the latest technology to ensure trainees are qualified to industry expectation. It is also important to guarantee transportation services to female trainees. Finally, TVET centers should offer more scholarships" (TGC-L1).

#### 5.3.5.5 TVET provision and quality

##### *5.3.5.5.1 Improve TVET course content and quality of trainers*

Interviews explored respondents' views on the suitability of the TVET system for training indigenous female workers. The responses indicate that some form of dual system that consists of both practical and theoretical training as most appropriate, for example, a TGC trainer suggested "compact training, which offers knowledge and practice at the same time" (TGC-T3).

Moreover, as discussed previously, the findings reveal the importance abolishing barriers between general education and TVET so as to improve the image and value of the TVET diploma, as the following explains: "we need to allow TVET diploma graduates the opportunity to enter the general education pathway and continue their studies towards achieving the baccalaureate certificate as this will provide parity between higher education and TVET and will help to overcome the difficulty of diploma graduates in finding employment" (TGC-T4). Additionally, several respondents expressed the view that equating a TVET degree with a university degree would require that TVET programme be lengthened to allow for more training hours, as explained by a TGC trainer: "The diploma programme in all colleges under TVTC is a Tertiary System, which consists of six levels in three semesters per year for a total of 2 years. It is suggested to introduce more hours and more modules to make it equivalent to university degree" (TGC-T1).

Finally, as mentioned above, the responses indicate that improvement in the quality of training methods and trainers is necessary, which can be achieved by: "assessing the labour-market requirements and accordingly redeveloping the TVET programmes, courses, and curricula to ensure industry needs are met. However, one should note that such analysis takes time while the labor market requirements changes fast due to technology so this needs to be considered" (TGC-T4). To address the latter point, continuous cooperation between TVET and industry partners is essential, as discussed next.

#### 5.3.5.6 Cooperation between TVET institutions and organisations

##### *5.3.5.6.1 Cooperation with companies to develop TVET courses*

Cooperation between TVET institutions and organisations was widely suggested by interviewees. For example, a trainer recommended, "cooperation between TVET colleges and

the labour market, strategic partnerships with international organisations located in Saudi Arabia is necessary for more effective TVET outcomes. There also needs to be better collaboration between TVTC and MoL to identify labour-market needs" (TGC-T4).

Moreover, the interviewees emphasised on the importance of offering more collaborative training. For example, a TGC trainer explains that: "universities should cooperate with TVET colleges to offer practical training for their students called 'collaborative training'" (TGC-T1), while a TGC director reinforced that there needs more "coordination between the MoL, the HRDF and the private sector to do joint training" (TGC-D3).

## 5.4 Conclusion

This chapter analysed the interviews conducted with the organisations in the government sector responsible for creating the policies and legislation to support TVET in KSA. TVET is expected to create a meaningful impact on the training and education system in Saudi Arabia and hence Saudisation by 2030. In the long run, TVET is expected to provide quality industry-relevant skills development to indigenous, while, at the same time, bringing about change in the Saudi culture.

As discussed, the participants expressed many concerns during the interviews. In particular, it was highlighted that although TVET has helped to curtail, to a certain extent, the rapidly increasing indigenous youth unemployment rate, many factors, such as culture, lack of structure, lack of cooperation, etc. were disclosed as barriers in path of reaping the complete benefits associated with TVET programmes.

In terms of the skillset of TVET graduates, the interviews revealed that outcomes of the TVET system were not fully addressing the skills need of the labour market, where in particular, soft and behavioural skills, such as communication skills, work ethic, language skills, problem solving, teamwork etc. were found to be significantly lacking among TVET graduates. The interviewees explained that this indigenous skills shortage leads to the reliance on expatriates who possess the skills demanded by industry. Although it was noted that the government has taken several measures to reduce the hiring of expatriates as much as possible, most private sector companies have found ways to abuse the system and continue to hire foreign workers, which are perceived as more hard-working, better skilled, and cheaper.

Moreover, the interviewees suggested that many others factors that were responsible for the reduced impact of TVET on up-skilling Saudi natives, including the lack of awareness of TVET and vocational and technical employment, which has led to society's negative view of the vocational pathway as a valid and respectable career choice. For example, they explained that Saudis often discourage or disrespect those who take up vocational jobs, which they consider lower status, hence peer, and family pressures play a significant role in the Saudi youth's choice of career. Accordingly, the interviewees suggested for stakeholders to create initiatives that increase awareness of the importance to the development of country of TVET and related jobs. They also stressed that allowing for greater mobility between TVET and general higher education, through for example the transfer of credits between the two systems well as

cooperative training, would help to improve society's image of TVET and align the diploma more equitably to a university degree. The government has been making many efforts to motivate the indigenous Saudi population to join TVET programmes and has also been providing skilled trainers as well as tailored programmes for specific job roles.

Respondents also commented on the limitations of the current curricula, which fail to provide the suitable balance of theoretical and practical training that would give trainees the skills to be labour-market ready. They therefore advised for TVET government authorities to cooperate and from strategic partnerships with private companies to ensure programmes are developed to cater to their specific requirements, including the necessary hours of practical training. It was noted that continuous monitoring of existing programmes and their efficiencies is thus essential to ensure they maintain relevant as industry develops.

The latter part of this chapter discussed the role of Saudi women in the labour market. Saudi Arabia has a very conservative society that severely limits the opportunities for women to participate in the labour market. Traditionally Saudi women were restricted from work, however the government realised that to achieve its vision to become a knowledge economy with low indigenous unemployment, it can no longer waste half of its human capital potential by excluding women from the job market. Thus, the government has recently initiated a series of policies to encourage and support women so that they can participate in the labour market and contribute towards the Saudi economy. Legislation has been introduced that balance the restrictive traditions and cultural practices against women (such as gender segregation, driving ban, restricted fields of study, women's traditional role as homemaker etc.) with the need to accept women as active members of the economy.

Despite these efforts made by the government, the interviewees state that there is still a long way to go before the country can compete with other major countries in the world in regards to women employment, empowerment and equality.

# 6 ICT Sector Analysis
## Interviews from: STC, Cisco and CITC

## 6.1 Introduction and overview of the ICT sector

Different sectors arguably have different trends in the supply and demand of skilled labour, and depend on different factors (Maselli, 2012). Similarities and differences between sectors could lead to either the development of a holistic TVET framework or to different approaches for each target sector. A key factor differentiating the ICT sector, for example, is its technological evolution (Maselli, 2012). Rapid technological evolution in a sector tends to increase the demand for highly skilled labour to complement that technology and decrease the demand for less-skilled tasks that could possibly be automated. Therefore, this chapter investigates the ICT sector as an example of a high-skills sector, whereas the tourism and hospitality sector is explored in the following chapter as an example of a lower-skilled sector. Although both sectors are relatively new in the Saudi economy, they have received significant attention from the Saudi government as key contributors to economic diversification.

This chapter first presents a detailed overview of the ICT sector by discussing the current context, trends and practices. It then introduces the policies and practices relating to TVET, skills and employment, followed by an overview of the organisations taking part in this research. Interviewee responses from various stakeholders in three companies in the ICT sector are analysed to identify key themes and concepts related to TVET.

This section provides a detailed overview of the ICT sector by considering employment trends, economic development and long-term predictions, as well as policies and practices relating to TVET, skills, and employment. The roles and objectives of the organisations participating in this research will also be discussed.

### 6.1.1 Secondary data about the ICT sector

The value of the Saudi ICT sector divides between telecoms companies (76%), IT services (12%), IT hardware (9%) and software (3%) (CITC, 2015). The largest telecoms companies include the Saudi Telecommunications Company (STC), who took part in the current research, and other major players such as Etihad Atheeb Telecom, Mobily, Zain, Virgin Mobile, and Jawraa Lebara. These companies also have contracts and partnerships with many international companies. The Integrated Telecom Company (ITC) is a state-sponsored regulator and infrastructure owner that has partnerships with Cisco Sun Microsystems, who

took part in the current research, as well as Oracle and HP. The sector is regulated by the Communicating and Information Technology Commission (CITC), which valued the sector at 111billion SAR in 2014, with a projected to increase to 138billion SAR by 2017 (CITC, 2015). It is the largest and fastest growing telecommunications market in the Middle East, and it contributes around 3% to Saudi Arabia's GDP (Al-khatani and Khan, 2013; Oxford Business Group, 2016; Wansink, 2016). Saudi mobile, broadband, and Internet services, for instance, are the largest in the Middle East in terms of capital value and volume of spending (Global Competitiveness Forum, 2015; Wansink, 2016). In 2013, new Mobile Virtual Network Operator licences were offered through auction and were seized by companies such as Virgin Mobile and Lebara-Huawei, leading to a more competitive telecommunications industry with the existing STC, Mobily and Zain (Wansink, 2016).

Spending on ICT, such as computer software applications and mobile usage in Saudi Arabia, is expected to reach around US$37 billion in 2017, as organisations have been implementing digital transformation programmes to enhance their competitiveness (Oxford Business Group, 2016). Moreover, the Saudi government is rapidly digitising its public services through various e-government projects (Oxford Business Group, 2016; Wansink, 2016). In addition, the Saudi government is developing a "Smart City" (King Abdullah Economic City – KAEC), which is planned to employ around two million people by 2035 (Oxford Business Group, 2016; Wansink, 2016). These initiatives have significantly increased the need for ICT skills and expertise in the country.

The number of people working in ICT has also increased rapidly in recent years, with a projected 213,000 employees in the sector in 2017 compared with 165,000 in 2014 (CITC, 2015), a 29% increase in just three years. People working in the ICT sector are generally younger than those in the overall Saudi workforce, with 76% of them under 40 years old, compared to only 59% in this age group across other sectors. There is a strong upward trend of users of ICT. Table 6.1 highlights the number of users of each of the five key communication technologies in KSA.

Table 6.1: ICT user share for the five key ICT industry sectors in KSA, 2017

| User groups | Total users/households | Proportion of total |
|---|---|---|
| Saudi resident population | 31.74 million users<br>5.93 million households | 100%<br>100% |
| Fixed telephone households | 3.8 million | 52% |
| Mobile telephone users | 44.1 million | 139% |
| Fixed broadband households | 3.3 million | 55% |
| Mobile broadband users | 25.3 million | 80% |
| Internet services households | 24.1 million | 76% |

*Source: CITC, 2017*

However, the ICT sector in Saudi Arabia faces considerable challenges, a key one being the availability of skilled labour. Although job nationalisation policies have increased ICT job opportunities for skilled Saudi workers by 24% between 2014 and 2017 (Arab News, 2016d), a perennial skills gap means that not enough qualified and skilled employees meet the needs of the sector (see Figure 6.1). In 2017, there was an estimated skills gap of 37,700 people, with demand for employees outnumbering those available. To develop its digital economy, therefore, it is critical that Saudi Arabia nurtures human capital that can lead the ICT industry (Global Competitiveness Forum, 2015; Oxford Business Group, 2016).

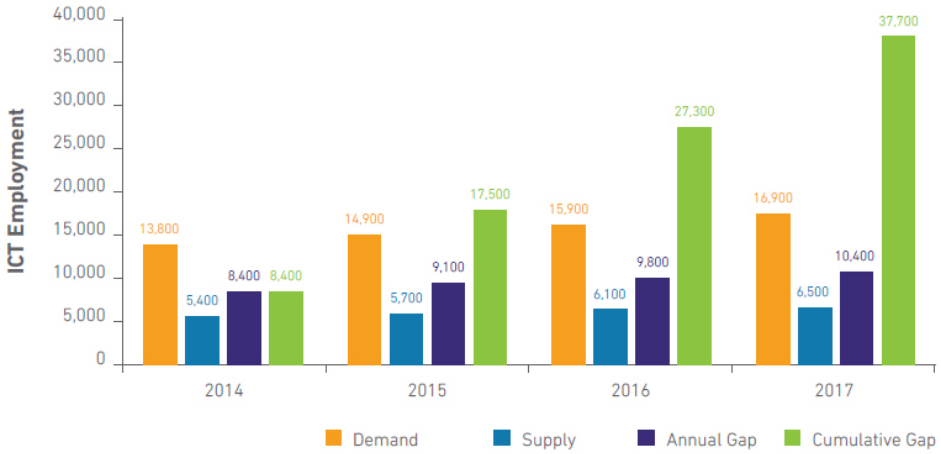



***Figure 6.1: ICT sector employee supply, demand and skills gap between, 2014-2017***

*Source: CITC, 2015*

The CITC (2015) has warned that a "lack of ICT skills can lead to reduced efficiency and higher ICT costs, and in turn, undermine competitiveness. More than 40% of organizations surveyed by CITC agree that a lack of ICT skills in the Kingdom has a significant impact on ICT operations and performance". Although there is a lack of comprehensive data on the nationality of ICT employees in KSA, it is estimated that indigenous Saudis make up nearly half of the national ICT workforce; however, they, generally work for larger companies and government institutions, with smaller companies more likely to rely on expatriate employees (CITC, 2015).

Albugami and Ahmed (2015) highlight the ICT skills gap among indigenous workers and argue that a clear strategic framework is required for teaching ICT skills in schools. They identify several issues hindering the success of ICT implementation and development, including the gap between ICT policies and practices, the lack of infrastructure and access to ICT resources and technical support and maintenance, ineffective management, teachers' negative attitudes, beliefs and behaviours toward ICT tools, and the limited training of teachers.

Organisational readiness to accommodate Saudi TVET workers arguably depends on the type of organisation and how they employ ICT workers, either directly as part of an operational company that manufactures products and provides services, or indirectly as a contracting company that collaborates with other contractors to complete projects and create revenue. This also determines their investment in the Saudi ICT sector and their need for skilled ICT workers. Operational companies are responsible for delivering a product or service and are therefore more likely to employ people with hands-on management skills, or client-facing soft skills, in addition to general business skills such as sales and marketing. Cisco, Apple, Huawei and Samsung are examples of operational companies. Such companies are more likely to rely upon university graduates, as the skills required tend to be more general and varied. In contrast, contracting companies are responsible for the supply of services and products to a contractor, rather than directly to the consumer, and they may fulfil a more specialised and technical role for the company they are contracted to. Therefore, contracting companies are likely to require larger numbers of people with vocational and technical training within the ICT sector and are less likely to need such a diverse workforce in terms of employee skills and roles. Oracle, Nesma or CITC are examples of contracting companies. It is, therefore, important to consider the type of company when understanding its reliance on vocational ICT employment, the level of Saudisation, and the ability to attract, train and employ Saudis in the ICT sector.

It is also important to consider the role of gender in ICT employment, as in other sectors (as discussed in greater detail in Chapter Five). Only 6% of the ICT workforce is female, and the proportion of female workers is considerably lower than in other Middle Eastern countries (see Figure 6.2). This gap is much larger than the gender gap in the labour force in general (see Figure 6.3). There may be a lack of employment opportunities for female workers within the ICT sector, or there may be a lack of female Saudis seeking skills and employment in this area. Gender is, therefore, an important factor, as there may be potential for increasing Saudi ICT skills and employment by targeting female employees.

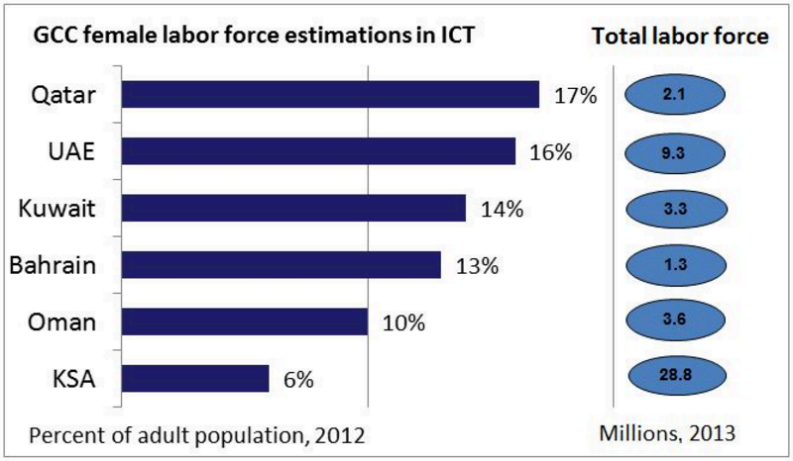



***Figure 6.2: Labour force participation rate, female (% of female population aged 15+) by GCC country***

*Source: Trumpe, 2015*


***Figure 6.3: GCC female labour force estimation in ICT***

*Source: Trumpe, 2015*

### 6.1.2 Current policies and practices

ICT is a key sector in the transformation of Saudi Arabia into a knowledge economy and the diversification of inputs to the economy. This is manifested in the Saudi government commitment to growing the ICT sector through considerable investment (Arab News, 2015a; Global Competitiveness Forum, 2015), legislation, and policies to liberalise the sector (Wansink, 2016). For example, the government has been deregulating the ICT industry and privatising governmental ICT companies to increase competitiveness in the ICT market. The state has also implemented regulatory and legislative frameworks as part of sector restructuring. It passed the Telecommunications Act and the e-Transactions Act, which provides the legal framework for electronic transactions, as well as the adoption of computer and Internet criminal law for protecting user privacy. A primary policy impacting the ICT sector is the nationalisation of jobs (i.e. Saudisation). Policies such as the Nitaqat programme, legislation, and incentives have encouraged organisations to employ indigenous Saudis.

The ICT sector is substantially knowledge-based; hence its growth potential is heavily dependent on the availability of skilled, motivated professionals and technicians, the critical success factor for all high-tech companies (Trumpe, 2015). The Saudi government, along with the CITC, have introduced several major policy interventions to improve the supply of skilled employees in the ICT sector. Since 2005, financial support has been given to more than 18,000 graduates (CITC, 2015) as part of the King Abdullah Scholarship programme. The programme sends potential ICT specialists abroad for international training, particularly in the US, UK, Australia, France and Germany. Within Saudi Arabia, there has also been a 500% increase in the number of colleges teaching computer science, from three colleges in 2003 to 18 in 2009 (MoHE, 2010). A National Centre for E-learning and Distance Education has also been established, which helps to develop skills in a wide range of areas, including soft skills and non-specialised and non-practical ICT skills. The combination of these policy developments – Saudisation, international training and e-learning – means that the number of Saudis developing ICT skills has increased within TVET centres, as well as through international and distance learning.

### 6.1.3 Introduction to key organisations

#### 6.1.3.1 Communications and Information Technology Commission

The Communications and Information Technology Commission (CITC) was established in 2001 and has between 200 and 500 employees (CITC, 2017). It acts as the regulatory body for the ICT sector in KSA and provides services to the entire KSA region. It is responsible for overseeing many groups, including service providers, investors, government, individuals and corporate users. It also plays a role in the coordination and implementation of government strategies and policies (CITC, 2015).

For example, the CITC collaborates with the Ministry of Higher Education (MoHE) in regulating national developments of ICT by setting performance criteria and monitoring achievements and targets set out in the national long-term plan for science and technology. This plan aims to make Saudi Arabia a knowledge-based society and economy by 2025 (MoHE, 2010) and to be highly competitive globally. Another CITC initiative is the National Centre for Digital Certification (NCDC), which provides a complete system for managing the public key infrastructure (PKI) on which all electronic services, such as e-government systems, are based. PKI enables Internet users to perform all types of electronic transactions confidently and securely (MCIT, 2017).

The CITC has opened up the mobile phone market to investors and issued the first private licence for an additional mobile operator, Mobily, in 2007. Five further licences have since been issued to provide communications and two licences to provide data services. CITC is currently studying the market and identifying the necessary measures to issue a third licence for a mobile service provider, as well as a second licence for a landline telephone service provider. It therefore has a strong position in making decisions about how private companies operate in the ICT sector.

The CITC is following a global trend of combining communication and ICT into a single sector. It works closely with the Ministry of Communications and Information Technology (MCIT), formerly the Ministry of Posts, Telegraphs, and Telephones, which is responsible for telecommunications infrastructure. The MCIT and CITC have embarked on initiatives to bring about this integration, including the establishment of the Home Computer Initiative, which aims to introduce personal computers to one million Saudi households in the next five years.

They have also launched the Digital Excellence Award to highlight and reward the creators of Arabic content on the Web.

#### 6.1.3.2 Cisco

Cisco is the largest networking organisation in the world and provides networking products and services ranging from networking devices (e.g. routers) to cloud networking and Internet of Things (IoT) technology. In addition, Cisco has its own networking academy offering a range of professional and technical qualifications for networking engineers and technicians, both online and through their 9,000 academies in over 170 countries (Hooper & Sumption, 2016).
Cisco manages its business worldwide by having three distinctive geographic segments: the Americas; Europe, Middle East, and Africa (EMEA); and Asia-Pacific, Japan, and China (Cisco, 2016). Cisco Saudi Arabia is part of the EMEA segment. As an international company, it is well connected to global job markets, specialisations, and new technologies.

Like STC, Cisco's policy is to invest considerably in research and development. Global research and development expenditures at Cisco increased from US$5.9 billion in 2013 to US$6.2 billion in 2015 (Cisco, 2016). An increasingly important of development for ICT companies is the IoT, which involves the development of information networks between electronic devices around the world, enabling data-driven services and improvements (Cisco, 2016; Hooper & Sumption, 2016). For KSA to meet its economic goals, it will be important for Saudi companies to stay up to date with such international technological developments. This is expected in the next decade to generate around SAR60 billion for the public sector in Saudi Arabia (Arab News, 2015b), requiring more skilled ICT workers who are up to date with changing technology.
Within KSA, Cisco has implemented several internal policies to develop workforce skills. These include the Networking Academy, which provides training programmes, and the Netversity online platform, which provides information about career pathways and Cisco recruitment services.

Documentation and interviews with Cisco show that the company's global policy (including in Saudi Arabia) is to form strategic alliances with other organisations, including NGOs, educational institutions and community centres, to help learners prepare for professional and technical entry-level ICT jobs, and to assist professional development of trainers (Cisco, 2016; Hooper & Sumption, 2016). For example, Cisco has a fresh graduate programme that offers

annual opportunities to Saudi graduates to spend a year at Cisco's hub in Amsterdam to be trained as, for example, systems engineers or technical support workers; once graduated, they get a job at Cisco Saudi Arabia (Arab News, 2015b).

Cisco Networking Academy provides young people with skills required by employers. Students who complete the academy's courses are finding jobs and advancing in their careers because their skills are recognised by employers and needed in the local job market. The academy's training programme has helped 4.25 million students worldwide to achieve digital literacy or ICT professional training and certifications. In 2004, the King Abdulaziz University started one of the first Cisco Academies in the region as part of the two-year diploma track in the Computer Science Department. Content is developed by educational experts and Cisco engineers to match industry and employer requirements for qualified technicians. The curriculum uses a combination of e-learning and practical work, with students having access to course materials from anywhere. In 2010–11, the programme accepted graduates who need more practical training to find employment. As part of this training academy, Cisco offers five levels of network certification: Entry, Associate, Professional, Expert and Architect.

In addition, Cisco commits to the government's Saudisation programmes by investing in Saudi Arabia and training and qualifying indigenous Saudi professionals, technicians and trainers, and by diversifying the workforce by hiring more Saudi women (Arab News, 2015b). Evidence of Cisco's commitment to Saudisation is that the head of Cisco Saudi Arabia is an indigenous Saudi. However, Saudisation in the company is currently at 46%, and Saudi female representation remains low (Arab News, 2015b). Cisco Saudi Arabia has plans to offer flexible working conditions and appropriate work-life balance to indigenous Saudis, especially female workers (Arab News, 2015b).

Cisco's recruitment strategy prioritises graduates and offers several pathways into employment, including 6–12 months of on-the-job training. Its Netversity recruitment system offers two distinct employment pathways (engineering and sales) for university graduates and provides a streamlined way for prospective employees to learn about job options and the required skills, and to apply for jobs and training online. Cisco state that they are "targeting top Saudi graduates in Business and Technology majors" (Cisco, 2017). They highlight that training includes a focus on both technical skills and soft skills, with the use of real-world training methods. At the conclusion of training, recruits have a 100% employment rate. Netversity's vision is to create the leading professional programme in technical and

interpersonal skills, by linking employees to training resources, empowering future generations of leaders in Saudi Arabia, and leading connectivity in the Middle East (Cisco, 2017).

#### 6.1.3.3 Saudi Telecom Company

Founded in 1998, and with more than 17,000 employees and revenues of more than SAR11 billion ($11 billion US$D), Saudi Telecom Company (STC) is the largest telecommunications organisation in the Middle East and Africa region. It provides communication services and end-to-end customer solutions in Saudi Arabia and other GCC countries including UAE, Kuwait and Bahrain, and African and Asian countries including South Africa, Turkey, India and Malaysia. STC offers a wide range of communication services such as landline, mobile and Internet services, as well as computer networks.

STC is committed to research and development through collaboration and cooperation with several universities, such as King Saud University and King Salman Science Oasis. With King Saud University, STC launched the first specialist ICT programme (with investment of SAR10 million), the "STC chair programme". This aims to establish a communications and networks factory and an electromagnetic imaging factory at the university, and to sponsor many ICT projects. With King Salman Science Oasis, STC has sponsored the technology hall (SAR50 million), which aims to motivate people, especially children and youth, to work in science and technology.

In addition, STC is committed to Saudisation by intending to rely on qualified indigenous Saudis. As a result, STC has a Saudisation rate of 90%. Thus, the company has been recognised and celebrated by the Saudi government as well as by the convention led by labour ministers in the GCC countries.

Internally, STC has a general plan for TVET that covers short, medium and long-term strategies. For this, STC launched several initiatives and programmes targeting employees to train staff in all technical and administrative fields, computing, and English, through interactive methods. The leaders and directors of the company are offered specialised executive coaching and workshops. There are more than 1,000 training courses with around 11,000 staff (Saudicam.com). The STC Developer Training initiative

covers a series of courses that target Saudi app developers across the Kingdom. STC has created this program to provide Saudi developers with educational training about trending operating systems and applications. The program aims to: increase the knowledge of Saudi developers and educate them on building apps; Encourage and support developers with producing apps. (Saudicam.com)

STC has also established the Huawei Training Academy at Prince Bin Sultan University in Riyadh, as part of the King Salman Education for Employment programme. Launched in cooperation with Prince Sultan, the Saudi Telecom Group, and the Saudi Huawei Company, the academy gives young Saudis the international knowledge and skills needed to achieve a prosperous employment future in Huawei and STC. The curriculum consists of English language sessions for 16 weeks, training on the Huawei technology programmes for 21 weeks, and sessions on self-development, building personal traits, communication skills, and team work for a period of three weeks. The programme targets young male and female graduates from Saudi universities and faculties who hold a bachelor's degree or diploma and prepares them for a career with STC (STC, 2017).

Documentation and interviews with STC show that the company collaborates with organisations both nationally and internationally. Nationally, STC works with various governmental and non-governmental institutions, and with private-sector organisations. STC has collaborated with governmental organisations and the TVTC to establish the National Entrepreneurship Institute, a non-profit national centre that helps indigenous Saudis to run their own business or become self-employed. The aim of this initiative is to develop and promote entrepreneurship and to build a positive attitude towards self-employment among indigenous Saudis. It helps people to start their businesses, and assists them by offering services, including funding, permits, guidance and consultancy.

Internationally, STC exchanges expertise with other organisations who employ people from TVET backgrounds in many other OECD countries. An example of these international partnerships is the collaboration with Finnish company Comptel, who have invited Saudi employees to practice in conferences and workshops (Business Wire, 2017).

## 6.2 Interviews and analysis

Employee interviews within the ICT sector were divided into five sections, each addressing a different topic. These sections focus on participation of indigenous Saudis in the ICT sector (6.2.1), skills profiles and labour market needs in the ICT sector (6.2.2), the TVET system (6.2.3), stakeholder responsibilities for development (6.2.4) and suggestions and recommendations for the future (6.2.5).

Responses to the interview questions were thematically analysed, with emerging concepts categorised into themes. Six main themes were identified:

1. Understanding the labour market and need for skills
2. TVET provision and quality
3. Career choices and awareness
4. Cultural barriers
5. Cooperation between TVET institutions and organisations
6. Wider education systems and employment pathways

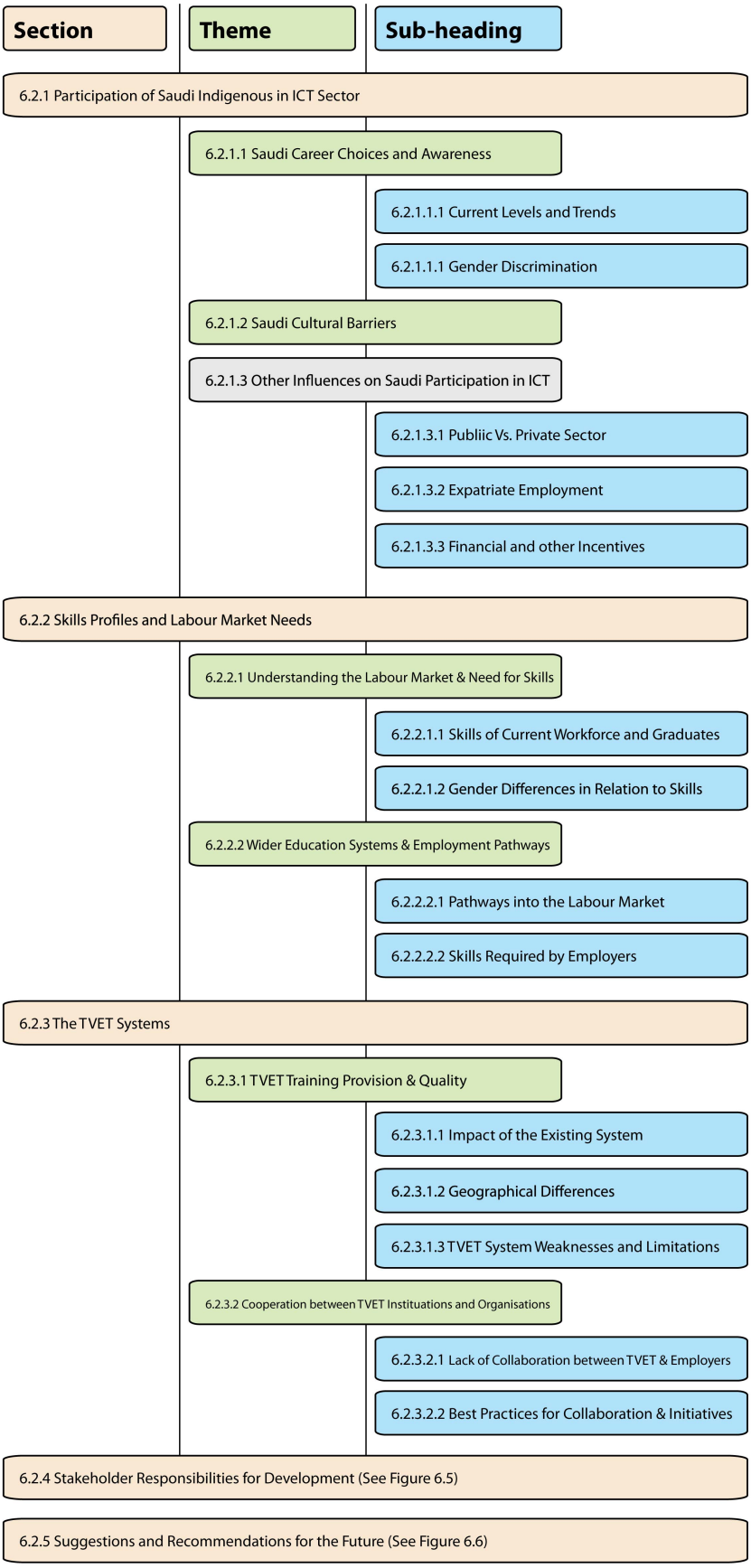



***Figure 6.4 Qualitative analysis structure, including sections, themes and sub-themes***

Each interviewee is identified by their company name and role, as shown in Table 6.2.

Table 6.2: Interviewee references and positions within each company.

| Interviewee Reference | Position | Interviewee Reference | Position |
|---|---|---|---|
| CISCO-D1 | HR Manager | CITC-D5 | General Manager of CITC office in Dammam and Khobar |
| CISCO-D2 | Pre-Sales Channel System Engineer | CITC-D6 | HR Development Manager |
| CISCO-L1 | Pre-Sales intern/ Trainee system engineer | CITC-D7 | General Manager of HR and Training |
| CISCO-G1 | Pre-Sales Channel System Engineer | CITC-G1 | Graduate Financial and Administrative Advisor |
| CISCO-G2 | Pre-Sales Channel System Engineer | STC-D1 | Training Planning Director |
| CISCO-D3 | CEO Regional Manager for KSA | STC-D2 | Technical Training Delivery Sector Manager |
| CISCO-G3 | Advanced Services (Network consulting Engineering) | STC-D3 | General Manager Training Design |
| CISCO-G4 | Advanced Services (Network consulting Engineering) | STC-T1 | Transmission Equipment (Trainer) |
| CITC-D1 | General Manager for Branches (Regional Manager) | STC-T2 | Training & Development Specialist IT (Trainer) |
| CITC-D2 | General Administration in Planning and Projects | STC-L1 | Operation & Maintenance (Trainee) |
| CITC-D3 | Manager of National Plan Administration for Numbering | STC-L2 | Trainee in HR Services (Trainee) |
| CITC-D4 | Deputy Governor for Competition & Legal Affairs | STC-L3 | IT Support Business Analyst (Trainee) |

### 6.2.1 Participation of indigenous Saudis in the ICT sector

This section discusses factors influencing the participation of indigenous Saudis in the ICT sector and trends relating to employment, training and participation. It includes two main themes identified through analysis: Career choices and awareness; and Cultural barriers.

#### 6.2.1.1 Saudi career choices and awareness

##### *6.2.1.1.1 Current levels and trends*

The Saudi ICT sector has increasingly attracted indigenous workers, more so than other more established sectors. As outlined in Section 6.1.1 above, there has been an increase in ICT employment, but this has been outpaced by growing demand in the sector. One of the interviewed learners at Cisco expressed the view that "this sector is highly desired by Saudis" (CISCO-L1). According to many interviewees, the level of Saudi participation is believed to be at a desirable level, especially within some companies: "participation in STC is big" (STC-D3).

The attractiveness of the ICT sector to indigenous Saudis is attributed to government policies, most prominently those related to foreign investment in the ICT sector and to Saudisation in the labour market. One of the Cisco directors argued that "Now, there is acceptable participation of professional Saudis in ICT" (CISCO-D1). The same director explained that "in 2011, Saudisation was 25% but today, it is 50%. It is a big increase in four years, which proves that international companies could be run by Saudi nationals" (CISCO-D1). This view was supported by graduates. For example, a Cisco graduates stated that "participation is high in professional and vocational jobs in the ICT sector. For example, my graduation group are about 30 people and all of them work in the private sector such as Cisco, STC and Huawei" (CISCO-G3).

Although some interviewees spoke about significant improvements in Saudi indigenous participation, others stated that it remains too low and that more needs to be done to increase Saudi participation in vocational roles: "There is a big lack in that sector on both sides, governmental and private sector" (CITC-D1). This demonstrates that not all areas of the ICT sector have experienced a positive shift in indigenous Saudi participation. Rates of Saudi labour force participation vary widely across the sector according to company type (i.e. whether it is private or public, and whether it is a large multinational such as Huawei or Cisco or a small local firm) and the skills required – both technology-based skills (such as network

and system administration, field operations, telecommunications, application development) and business and soft skills (such as technical writing, problem-solving, leadership, critical thinking, presentation, people management, and team-building and communications). As discussed below, Saudi youth generally seek jobs in the public sector with administrative rather than technical roles. Consequently, there were notable differences in the participation rate between the companies in the study, with CITC having the highest Saudisation rate (unsurprisingly, since it is an organisation with close ties to the state): "There is no lack in the participation of Saudis in technical specialisations. The percentage of Saudis in CITC reached 99%" (CITC-D7). An STC trainees commented that indigenous participation in the ICT sector in general is low, yet some companies, such as STC, experience high Saudi participation rates: "The percentage of participation in STC is very high, but in the telecom sector generally it is low. They exist in technical programming but mechanical, maintenance, computer engineering jobs for Saudis are low since most of them do not want stress at work; also, salaries are not sufficient" (STC-L3).

#### *6.2.1.1.2 Gender discrimination*

Interviewees mentioned gender discrimination as hindering the progress of Saudi's labour market, claiming "there are some restrictions to employing women" (CISCO-G4). A female graduate emphasised the need to reduce gender discrimination in the labour market through communication, integration, respect and acceptance; she noted: "discrimination between men and women exists in the labour market as employers prefer to hire men and do not give women a chance to work" (CISCO-G1). Consequently, participation rates of men and women in the ICT sector differ significantly. This disparity is probably due to a combination of employer gender discrimination resulting in significantly fewer opportunities for females to work in the sector and a lack of female Saudis seeking training and employment in the ICT field.

### 6.2.1.2 Saudi cultural barriers

As many interviewees mentioned, it is a widely-held view that Saudi Arabian youth have a casual attitude towards work: "the awareness of work value is very low [among indigenous Saudis]" (STC-D4). In addition, in Saudi society a major consideration in accepting employment is whether a job aligns with one's social and national status. The prevailing view in Saudi society is to look down upon technical and manual jobs. Saudis consider certain vocations as

demeaning, disrespectful, and of lower status: "society's inferior view on vocational jobs is a great point of weakness" (CISCO-D2). Vocational fields include those for which there is specific training, and they typically include technical and specialist roles, such as field operations, cabling and networking, where training is essential to develop knowledge and skills which are not readily transferable from other fields. A director at STC stated: "the participation of Saudis in technical and vocational jobs is very low. For example, in Jeddah there is a subcontractor of Huawei that comprises ten Pakistanis and two Chinese workers only; no Saudis are found in that company; STC supervises it only" (STC-L1). A Cisco graduate commented: "there is a big lack of participation in vocational work like cabling" (CISCO-G1). A Cisco director explained: "Saudis are still not interested in vocational jobs… due to their limited rank, low income, and long working hours. [These jobs generally] do not need high qualifications [and have] limited future career, so Saudis don't look for these [vocational] qualifications" (CISCO-D3). This raises an interesting point: the choice of university degree is often based on perceptions of status, with only a small percentage of Saudi youth deciding to obtain a technical education rather than academic. This attitude towards technical education and work contributes to the shortage of indigenous technicians.

Status has such high importance in decision-making within Saudi culture that, even if the pay is good, Saudi youth often reject jobs because they feel ashamed to work in certain roles: "A lot of technicians are Saudis but in field operations the participation is low due to Saudi culture; they may feel ashamed when they face or interact with the public in their technical work" (STC-L2). Naturally, such a negative cultural perspective on vocational work significantly impacts Saudi participation rates in the ICT sector, with many capable Saudis preferring unemployment over a job they consider unsatisfactory. Another interviewee reiterated that indigenous people prefer administrative roles, thereby reducing the supply of skilled Saudis available for technical work required by the ICT labour market: "There is low participation because the indigenous Saudis have no desire for technical and vocational jobs; they prefer administrative jobs as they search for rest and prestige" (CISCO-G1).

The "search for rest" points to another cultural affliction that permeates Saudi society: the absence of a suitable work ethic. Many interviewees reported the relaxed attitude of Saudis regarding work as a major drawback that significantly impacts participation rates in the sector: "Saudi indigenous technicians lack seriousness in work, they always want more, need higher income, training, insurance and consider their technical work as inferior. It is a matter of culture and society's perception of technicians rather than education" (CITC-D2). Such

negative sentiments were echoed by a Cisco director: "[Saudis] are not willing to work for more than eight hours a day; [they refuse] to work overtime and are not fully committed. By contrast, expatriates are hard workers, don't mind working overtime and [are] committed" (CISCO-D2). This indolent nature stems from the culture of dependency that flourished under an oil-rich government, whereby people were given monthly stipends for enrolling in college, and graduates were guaranteed a place on the public payroll with hefty wages and a short working day. However, as the government realises the unsustainability of oil-dependency and has had to significantly reduce its wage bill, there are fewer easy public sector jobs available for Saudis, thus Saudis should compete in the private sector, where working conditions are more demanding.

#### 6.2.1.3 Other influences on Saudi participation in ICT

Several other related considerations influencing the level of indigenous Saudi participation in the ICT sector were noted by interviewees. These are: public versus private-sector work; expatriate employment; and financial and other influences.

##### *6.2.1.3.1 Public versus private sector*

In light of the above, indigenous Saudis prefer to work in the public rather than private sector, as work in the former is less demanding, with fewer working hours, better job security, and higher pay, benefits and insurance. Respondents identified Saudi participation in the government sector as higher than in the private sector: "In our authority [which is a governmental one], [participation of Saudi workers] is very good because we attract and employ the best/qualified indigenous Saudis in the society in the ICT field. Outside our authority [other computer system and communication companies] it is low because most Saudis search for rest and job security" (CITC-D5).

##### *6.2.1.3.2 Expatriate employment*

Another key influence on the indigenous participation rate in the ICT sector is the overreliance on expatriate employment, on which many interviewees commented. An STC director explained: "Our competitors have few Saudi workers or do not have Saudisation at all. For example, in sales in mobile markets, we see the front lines are occupied by expatriates" (STC-D1). Another interviewee confirmed that, although there is marked progress in the number of

indigenous Saudis participating in TVET in the ICT sector, "most vocational workers related to ICT in KSA are expats" (CISCO-G1).

The interviewees attributed this to several reasons, including that expatriates, unlike Saudis, have a strong work ethic, are willing to work long hours, and demand a much lower salary. Moreover, expatriates tend to have greater experience than Saudis and a faster learning curve. It is, therefore, more cost effective for private companies to hire skilled foreigners than to hire and train Saudis: "The private sector prefers to import technicians from the Philippines or India, as expatriates are more experienced and cheaper" (CITC-D2); "Companies prefer to bring two or three expatriates instead of one Saudi due to salary; so there is no Saudisation. Both Saudis and expatriates have skills but companies seek low wages with high skills" (CITC-D3). As another director explained, the difference in pay can be very significant: "[companies] prefer [to hire] expatriates [rather] than Saudi workers who produce fewer outputs but demand higher salaries (about SAR4,000), unlike expatriates who are satisfied with a low salary (about SAR1,000). However, Saudi workers are not satisfied with low pay and prefer to work in administration [where pay is higher] not in technical roles" (CITC-D1).

Indeed, an underlying issue is the cultural stigma of working in technical fields (explained above), which results in a severe demand-supply gap for ICT professionals, as Saudi youth choose not to enter the profession, leading to pressure to use expatriate workers to fill jobs: "the Minister of Telecommunications imported – and still imports – about 1,000 Philippine technicians because technical faculties could not fill the shortfall of technicians" (CITC-D1).

#### *6.2.1.3.3 Financial and other influences*

Financial incentives are also often a strong driver in career choice. Thus, participation rates differ across the ICT industry according to level of pay, with better paid roles having higher rates of indigenous employment. For example, a trainer at STC stated that "some vocational specialisations are highly paid nowadays for Saudis. So, work becomes attractive to Saudi graduates. Saudi culture in the field of communication has changed due to high pay and quick career promotion. In STC, there is an expert track for technicians who receive the high salary of a general manager despite being a technician. So, it is a matter of temptation for workers" (STC-T1). On the other hand, low salaries in the ICT sector lead to low participation: "some hard jobs with low income, as seen by Saudi citizens, are occupied by expats due to low income" (STC-L1). A big enough financial incentive can, therefore, shift negative cultural

perceptions about vocational work and accordingly draw Saudis into the field. The question is whether companies are willing to pay the price.

Other factors affecting indigenous participation in the ICT sector relate to the ability of Saudis to follow a career path, as many Saudis consider ICT a stepping stone to managerial positions. For example, an STC trainer explained that "the percentage of participation is high in STC because we offer chances of recruitment, training and improvement" (STC-T2). In "IT or telecom" there is "job hierarchy until they become directors internally or externally now" (STC-D1). The possibility of promotion and a higher salary is also an incentive for Saudis when making career choices.

### 6.2.2 Skills profiles and labour market needs

This section focuses on the current skills profiles and the availability of skills within the indigenous Saudi population, as well as the needs of the labour market in the ICT sector. It discusses the current need for skills, the skills gap, and trends in the development of the ICT sector. Two main themes were identified: understanding the labour market and need for skills; and wider education systems and employment pathways.

#### 6.2.2.1 Understanding the labour market and need for skills

***6.2.2.1.1 Skills of current workforce and graduates***

The interviews indicate progress in the number of indigenous Saudis qualified through TVET to work in the ICT sector. For example, a Cisco director stated: "If I compare my experience today with about ten years ago, I would say there is huge shift in the amount of qualifications, talent and capabilities that we have among young Saudis" (CISCO-D2). The director explained: "when I started the recruiting process (I speak about my personal experience), I would get a very large number of CVs, barely one or two Saudis, but today I would get very large number of CVs from indigenous Saudis who have related qualifications, experience, and knowledge of ICT from both genders" (CISCO-D2).

Although findings from the interviews show a consensus regarding progress in terms of the number of Saudis attracted to the ICT sector, there were differing views on skill levels and

readiness for work of indigenous Saudis. It is important to distinguish between technical skills (such as communication systems, antenna theory, programming languages, algorithm and data structures, Web technology, network devices, operating systems, ICT maintenance, etc.), and business and management skills (such as technical writing, communication, team-building, time management, problem-solving, etc.). According to the interviewee responses, 38% claimed that Saudi employees possess the necessary technical skills to work in the ICT sector, with 62% claiming the contrary. As discussed in the next section, this difference in opinion may reflect that those who claimed that employees are suitably skilled were referring to employees who have gone through in-house company training, while the 62% who believed Saudis to possess inadequate skills were referring to employees who had passed through the TVET system. A Cisco graduate explained: "in the technical field, there is a big lack in the labour market of qualified Saudis, especially in engineering, and in people who work in technology owing to two reasons: first, there is difficulty in academic specialisation in ICT. Second, qualification of training and education quality is very poor" (CISCO-G4). This view was corroborated by an STC trainer who stated that universities only teach "60% of required skills [hence] university outputs are not matched to the market" (STC-T2). The degree to which the skills of TVET graduates match those demanded by the ICT labour market will be discussed later (Section 6.2.2.2.2).

When discussing the level of business and management skills, most interviewees stated that indigenous Saudis exhibit a severe skills gap. In particular, respondents mentioned that crucial soft skills, such as communication and organisational skills, were deficient: "Students are not qualified in communication skills, presentation skills, nor technical writing skills and do not show logic in thinking (problem-solving and critical thinking)" (CISCO-D2); "the biggest weakness is time management" (CITC-D3); "[A big] weakness among graduates is English language which is essential in the telecoms field" (STC-L3). The interviews reveal that the greatest dissatisfaction with graduates' skillsets lies in their inability to be punctual, to innovate, to adapt and handle stress, and to value their work. These essential soft skills are often underdeveloped due to limited extracurricular opportunities within and outside school, and to teaching methods that do not encourage critical thinking, problem-solving, leadership and effective communication.

#### *6.2.2.1.2 Gender differences in relation to skills*

One interviewee alluded to the disparity in skills between men and women because of segregation in the education system: "It depends if you are male or female, especially in ICT

specialisations, where most tutors are men. This means that communication between male teachers and females is hard according to admixture rules. As a result, women's skills are less developed and need more improvement" (CISCO-G4).

#### 6.2.2.2 Wider education systems and employment pathways

##### *6.2.2.2.1 Pathways into the labour market*

The interviewees perceived variation in organisational readiness to accommodate Saudi TVET workers, depending on whether an organisation is operational or contracting. An STC trainer explained:

> Saudi participation is high in operating companies like STC because suitable allowance is given for workers as STC develops its employees; there is job security and retention. In contracting companies, the participation of Saudi workers is low because it depends on low-cost employment and working hours are longer, so work is most suitable for expatriates. (STC-T2).

Generally, large multinational operational companies like Cisco, Oracle and Microsoft provide training programmes for all employees:

> these companies have training paths for each specialisation that give certifications prior to identifying one's career path. For example, Windows System Administrator is a job that is preceded by a training path, which one must pass before entering that career path. It is called training to employment with enhanced skills. (STC-T4)

This indicates a higher level of commitment in large operational companies to train their employees in "all required specialisations and functionalities, as well as in leadership. For example, STC is obliged to present specialist training for workers to be highly qualified when occupying their jobs. Training is according to job description and specific competencies must be covered" (STC-T1). Although there may be disparities among skill levels and profiles upon entering the company, training seeks to address these.

When considering the skills of employees in STC and Cisco, several respondents reported that they were well matched due to "expert [training] tracks for technicians" (STC-D1). An STC trainer stated: "In STC, we train workers on [how to use] the equipment in the field… therefore, their skills match" (STC-T2). Similarly, respondents from Cisco claimed that

employees' skills are closely linked to the needs of the company, since all employees, "when first appointed, [are sent] to the US for a two-week training course [where they learn] sales and technical processes to [be able to] perform their job" (CISCO-D1).

However, the interviews show that in smaller or local private companies commitment to training Saudi workers is less apparent. Several interviewees discussed the lack of private funding for TVET, particularly in the technology-intensive ICT sector. One respondent explained: "from the private sector side, they are in dire need to increase specialist technical and vocational training. Most companies have a gap in training since labs and their equipment cost a lot. They only care for administrative training courses, which need only trainers and trainees" (STC-D3). Indeed, most private SMEs in the ICT sector are not participating enough in qualifying and improving indigenous Saudis' skills because it costs them more than simply employing a more experienced expatriate; thus, the financial incentive is lacking.

#### *6.2.2.2.2. Skills required by employers*

In relation to the skills demanded by the ICT labour market, the interviewees explained that graduates are expected to have a mix of technical, behavioural and administrative skills: "Behavioural skills are a must, such as time management, communication skills, the ability to hold meetings. There is also a need for technical knowledgeable skills and expertise in conducting research and development" (CITC-D5). Interviewees also mentioned the need for graduates to demonstrate continuous self-development in order to keep up with rapid technological changes: "the problem is that Saudi students are confined to what they learn in university. They do not try to develop their knowledge or information… I found graduates do not have basics in knowledge or skills" (CITC-D6). Another CITC employee commented: "there is a gap between rapid change in this sector and skills improvement for people working in it" (CITC-G1).

The interviews indicated that many private companies discriminate against graduates with a diploma from a vocational institute, preferring to hire those with a university degree: "employers' culture of accepting diploma-qualified workers is so bad as they prefer to appoint university graduates" (STC-D4). Companies believe that Saudis with a university degree are better qualified than those with vocational qualifications, reflecting a lack of confidence and belief in the quality of TVET graduates.

### 6.2.3 The TVET system

This section considers the current TVET system and the methods used to provide vocational skills development and training. It discusses the impact of current systems, institutions and initiatives, and it explores their strengths, weaknesses and best practices. Two main themes were identified: TVET provision and quality; and cooperation between TVET institutions and organisations.

#### 6.2.3.1 TVET provision and quality

##### *6.2.3.1.1 Impact of existing system*

When asked about the impact of the exiting TVET system on the skills of indigenous Saudi workers, most interviewees stated that it is ineffective in up-skilling the labour force to meet the demands of the labour market. The consensus from these respondents is that the curricula in training centres and institutes are too broad with only the basics of each specialisation being taught. As one Cisco interviewee put it: "the question which is being raised here is whether the knowledge students get is sufficient to meet the needs of the labour market. The answer is that it is not sufficient. There is no university today that qualifies you to work immediately" (CISCO-D3).

Some interviewees attributed the limited impact of TVET on Saudi participation in the ICT sector to the prevailing negative attitude of Saudis towards technical and vocational jobs (see 6.2.1.2 above). They did not blame systematic faults in TVET, but rather the culture in Saudi Arabia that negatively impacts on the potential influence of TVET: "technical education is excellent but the problem is that graduates do not want to work in their specialisations. Instead they choose to work in managerial/administrative roles" (CITC-D5). Respondents felt that Saudi culture creates a shortfall in the supply of qualified indigenous workers in ICT, by directly influencing either young people's choice of qualification towards an academic rather than vocational path, or the choice of job graduates accept. Furthermore, the interviewees remarked that companies themselves do not value the diplomas of TVET graduates, believing that students who enter vocational pathways rather than university do so because they are of low calibre. For example, one interviewee stated: "I do not see any TVTC graduates in our company or any other international companies as they are of low quality. Diploma students

would be unable to complete university studies. Taking vocational studies is an exile for people in general education" (CISCO-G3).

Despite the general negative view on the impact of existing TVET on Saudi skills, some interviewees acknowledged a noticeable improvement in the system over the last three to four years, albeit stressing that more needs to be done: "In the past ten years, the impact [of TVET] has been passive, but in the last three to four years it has become positive. Saudis' trend towards diplomas has changed and is directed to vocational jobs" (STC-L3).

#### *6.2.3.1.2. Geographical differences*

The interviews reveal that the impact of TVET varies by region, as explained by a CITC director: "TVTC education and training is excellent in the eastern region (Dammam, Khubar, Ahsaa) because of its connection to [the] private sector and [because] there is a big difference in culture between people in the eastern region and those in Riyadh" (CITC-D5). Moreover, different skills are needed in different cities within KSA, which must be considered in the TVET system to ensure labour market needs are met: "Training systems must consider labour market needs and the different types of skills required in each city in the KSA" (CITC-G1). This underlines the notion that cultural factors have significant influence on Saudis' desire and motivation to qualify and work in ICT.

#### *6.2.3.1.3. TVET system weaknesses and limitations*

In response to the question regarding areas of weakness of the current TVET system, most interviewees cited a direct correlation between weak employment skills and a poor vocational education system: "Saudis have weak skills because the two-year content (curriculum) applied in the TVET diploma is weak and the methods of teaching are weak. University graduates are better than those with a [TVET] diploma" (STC-L3).

Additionally, several interviewees remarked that the curricula of TVET institutions tend to focus predominantly on theoretical training, rather than on real-world practical applications. For example: "The education [in TVET centres] is only knowledge and theory without application or practice… The major weakness is no practice before employment. I work in the field of networking, and I had never seen a switch or router while at university. I only read – there was no practice" (CISCO-G1). A Cisco director commented on the strength and breadth of TVTC qualifications: "TVTC qualifications are not strong enough to enter and compete in

labour market. TVTC must have variety and enrichment in different fields. For example, they must have a technical track, sales track, Baccalaureate track" (CISCO-D1).

An STC director addressed limitations in the TVET system due to institutions lacking capital and hence being unable "to build labs and be updated continually due to high expenses" (STC-D1). Unsurprisingly, inadequate resources hinder educational quality, particularly in the ITC sector, where having the most up-to-date equipment and tools is key to high performance and learning.

Some interviewees commented that the current TVET curriculum does not provide for continuous professional development (CPD) after graduation: "there is no continuous training" (CITC-D4). For industries such as ICT, where technology evolves rapidly, a system dedicated to CPD is essential. Some interviewees expressed the view that provision of CPD courses for graduates in the first few years of employment would not only help to improve the skills of graduates, but would also provide institutions with data regarding the areas/disciplines in which their curricula do not address the needs of the labour market, thereby stimulating continued improvement.

In addition to the lack of a rigorous and well-defined curriculum, several interviewees remarked on the poor quality of trainers: "teachers do not have the desire and enthusiasm to teach" (CISCO-G4); "teachers' weakness in schools in TVET fields is because it is a new field" (CITC-G1).

Finally, many interviewees commented that the TVET system is limited with regards to helping Saudi youth to decide on the appropriate career path according to their interests and competencies. Most respondents expressed the need to administer skills-assessment tests prior to students choosing their specialisation, since most students "do not know how to choose the right specialisation; thus, they tend to choose the easiest subjects irrespective of whether they are interested in them or not. Most have no desire to study the chosen specialisation" (CITC-D6). Other interviewees mentioned that vocational training is often chosen because it is considered an easy route. One respondent emphasised the importance of "identifying one's career path before choosing a training path" (STC-T2). TVET institutions need to provide students with more information regarding the professions they could undertake, as currently there is a "lack of proper guidance for students" (CISCO-G2), resulting in many drop-outs: "[many people] leave this field, as it is not suitable for the person himself"

(CISCO-G1). Moreover, one interviewee, explaining that some students are limited to certain specialisations because the training centres in their area only offer some fields, emphasised the need to increase the number of institutions and specialisations across the country: "there are superficial requirements that hinder [the choice of specialisation] such as location which can limit choice" (CITC-D7).

#### 6.2.3.2 Cooperation between TVET institutions and organisations

##### *6.2.3.2.1 Lack of collaboration between TVET systems and employers*

A major shortcoming identified in the interviews is that training curricula are not developed alongside labour market-needs, as a director from CITC explained:

We have a problem in education itself as it is not matched with [the] labour [market]. If anyone [who] graduated as a computer engineer (or any engineer) and wanted to work according to his study, he would fail as… [the] education curriculum still deals only with basics and… students are still taught old programming language that does not match labour work requirements. (CITC-D3)

The reason for this is that there is a fundamental disconnection between the governing bodies of the Saudi higher education training institutions and the needs of private companies. This disconnection results in inadequately qualified graduates: "In my opinion, the governmental or academic technical training (outside companies) lacks connection with current companies [so they are unable] to employ the graduates" (STC-D6).

Moreover, the interviews indicate that many TVET institutions lack systematic mechanisms for quality control of teaching, such as standardised testing: "[one] weakness is that there are no standardised technical tests" (CITC-D5). Another CITC director commented: "Most training institutions give certificates without qualification; they are profitable authorities not educational ones" (CITC-D3). There is also absence of a feedback system to monitor graduates in their job placements: "there is no follow up, they don't care what the outcomes or the knowledge outcomes from that programme are. Students receive no feedback… There is no discussion about difficulties we face or gaps in training system with students" (CISCO-G2). A feedback loop is key to providing institutions with a better understanding of areas of weakness in their curricula and for highlighting gaps where they fail to satisfy labour-market demands, so it forms an essential continuous improvement system for institutions. As one interviewee

stated: "there must be a system which measures the impact of training on graduates' performance in their jobs, which must be updated to the market needs. But unfortunately, we do not have this system" (STC-T2).

Finally, several interviewees spoke about the lack of cooperation between educational governing bodies, emphasising that stronger communication between related parties would benefit the TVET system: "TVTC must be part of the Ministries of Labour and Education. There must be a connection between them. There must be a political decision to support the technical education system" (CITC-D5).

#### *6.2.3.2.2 Best practices for collaboration and initiatives*

As stated previously, some interviewees (38% of total) indicated that indigenous Saudi employees possess skills are well matched to the needs of the ICT sector. The proficiency of these employees is attributed to the strength of the in-house training programmes offered by companies such as Cisco and STC. STC and Cisco interviewees emphasised that this positive impact is largely due to two fundamental elements: cooperation between their company and Saudi TVET authorities, such as the TVTC, and strategic partnerships with other private companies that facilitate training in mutual competencies. Interviewees from STC expressed the general view that STC's technical specialisation training programme is "the most important element… that enables workers to be highly qualified when performing their job in the company… Training is according to job description and specific skills are covered" (STC-D1). Another interviewee elaborated on in-house company training:

> technical training inside companies tries to cover employees' weaknesses by improving their skills... In STC, we provide two types of training: we train employees according to the needs of their job and offer cooperative training to secondary school and university students throughout the summer or for five to seven months during the school year. (STC-D3)

This training takes the form of temporary work placements and provides an opportunity for students to learn more about the roles available upon finishing their studies, while also establishing contact between employers and potential employees. An STC director explained that "[STC is] about to establish an STC academy in partnership with other institutions, such as electronics institutions [that already have] their own training centre, to provide cross-training across companies that require the same set of skills… These specific training centres will educate graduates so they perform better at their jobs" (STC-D1).

Similarly, interviewees from Cisco spoke about their company's training and assessment system as examples of best-practice initiatives: "Cisco has a separate contract for its seven months' training programme where trainees are assessed three times" (CISCO-G4). Another interviewee explained that "[Cisco] has a partnership with the TVTC offering a programme called net academy, which teaches specific technical skills required in ITC" (CISCO-D3). Such collaborative relationships with local universities, Saudi training authorities, and national and international ITC companies were put forward by many interviewees as best-practice initiatives that have proven beneficial in up-skilling Saudi graduates: "We send our technicians to take Master's degrees from abroad to be highly qualified in specialisation and language. We are in cooperation with different companies inside and outside Saudi Arabia such as UAE telecommunications" (CITC-D1). In recent years, the level of cooperative training at universities has improved, as one respondent commented: "Now there is six months cooperative training between universities and private companies. In the past, universities required only 30 or 40 hours training to graduate. The increase to 440 hours of training has had a positive impact" (CISCO-G4). This suggests that training centres would see improved results should they follow a similar cooperative programme and work closely with private companies, but to achieve this more private companies need to be given incentives to collaborate.

### 6.2.4 Stakeholder responsibilities for development

This section discusses the roles of various stakeholders in developing the TVET system. It also explores the roles of actors and institutions, and the collaborative relationships between them, which are required to implement changes and bring about improvements. Figure 6.5 summarises the six stakeholders and their roles in developing TVET. Each role is then discussed in the following section.

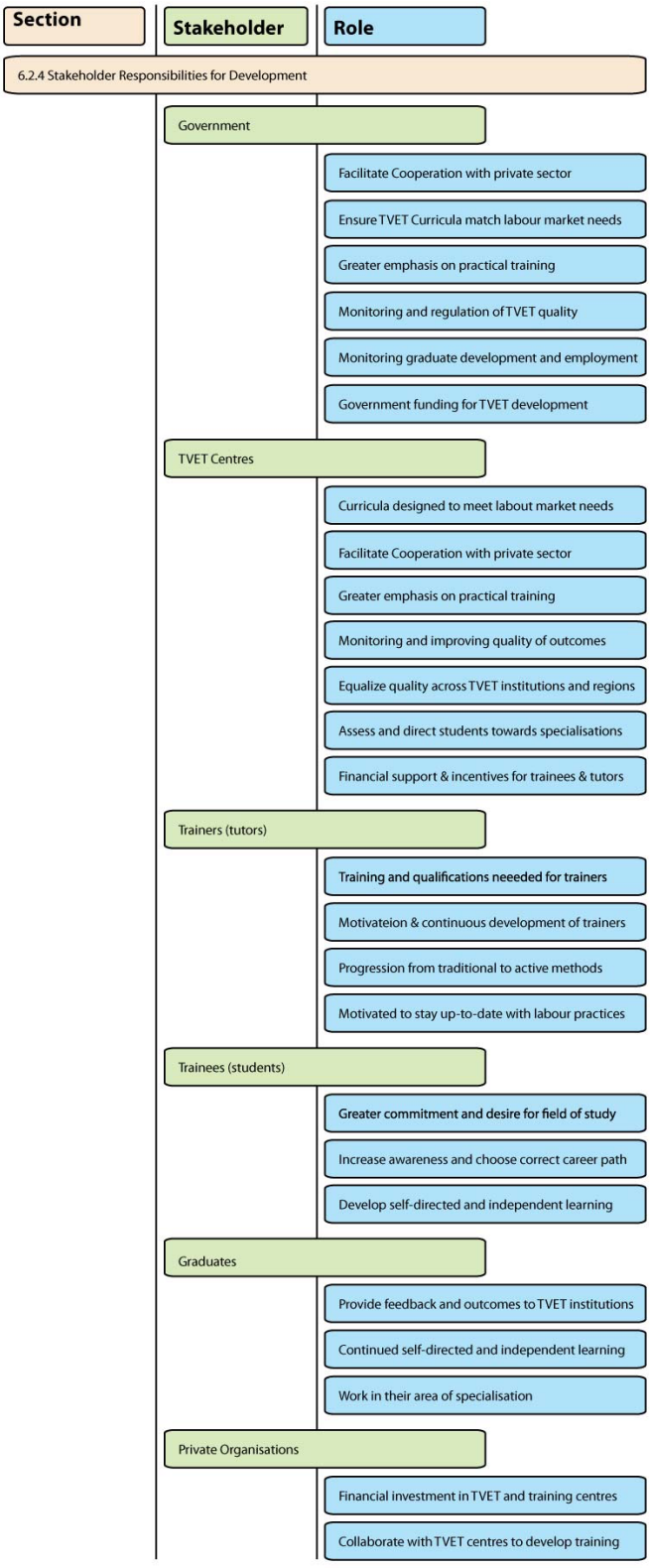



***Figure 6.5 Summary of stakeholders and their responsibilities for development***

***Government***

Respondents stated that the government should cooperate with the private sector as this will help to align the goals and motivations of both stakeholders. The outcome of such increased collaboration is the reduction of skills mismatch in the talent pool. As one interviewee from Cisco stated: "there must be a connection between companies like IBM, Cisco, Nokia, Ericsson and government authorities to feedback according to labour-market requirements" (CISCO-D1). Increasing cooperation is, therefore, an important part of the government's responsibility.

Respondents also stated that the government needs to change the curricula of TVET institutions to ensure that skills and specialisations match companies' expectations of graduates: "the curriculum must be improved and modified to cope with labour-market requirements" (CISCO-D2). A CITC graduate suggested: "there must be studies to know the requirements of the labour market. TVTC and universities must concentrate on these requirements to address the deficits and gaps. [These] studies must be continuous and [constantly] developed [and improved]" (CITC-G1). Other proposals to improve curricula included the expansion of practical training, and provision of better knowledge about the benefits of such applied training (see 6.2.5).

Several interviewees cited the need for greater regulation to control the quality of training centres. In particular, it was suggested: "The government must support training authorities with censorship over them. It must observe renewing licences for training institutions or giving them trust at least. It must identify the top ten of these institutions to increase competition among them" (CITC-D3). Increased competition between institutions should theoretically translate to increased quality of teaching. The government should, therefore, increase regulation of and competition between TVET institutes to push them to better performance.

It was also suggested that a system be established to monitor the progress of graduates during the first year on the job and to identify the suitability of their skills: "there must be measuring tests after graduation in technical and vocational jobs to identify who is qualified or not" (CITC-D5).

Some responses related to measures to improve TVET through increased government funding: "there must be [increased] financial support for TVTC" (STC-L2); "the government needs to

provide the latest equipment to TVET centres" (CITC-D6); "the state must support investment and knowledge trends in [the ICT] sector in general" (STC-T2). Finally, the government also has a role in "increasing the number of specialised technical and vocational training institutions across the Kingdom" (STC-D3), as they currently exist only in specific areas, such as Riyadh and the eastern region.

***TVET centres***

Interviewees remarked that the training provided by TVET centres needs to cater specifically to labour-market needs: "they must cope with the real requirements of labour markets. They have to design curricula on this ground" (STC-T1). Suggestions to achieve this goal include: "cooperation between TVET [institutions] and private-sector companies" (STC-D3); "training must be practical" (STC-D2); "there must be focus on on-the-job training experiences like co-op" (CISCO-D3).

As mentioned in 6.2.5, interviewees also discussed means of improving the quality of outputs from centres by ensuring trainers are well qualified and certified, and through the adoption of international benchmarks to assess quality. Moreover, to equalise quality across institutions there was mention of the importance of having "integration and cooperation [among] all responsible authorities in developing skills" (CITC-D1).

As discussed previously, trainees often have difficulty in choosing the specialisation most suited to them, which leads to high drop-out rates. Thus, several interviewees mentioned the responsibility of TVET centres to assess students' suitability for each specialisation using "internal tests like medical specialisation tests" (CITC-D5) and to direct students to high-demand fields in the labour market: "they must search for lack in specialisations in the labour market and direct their students to these specialisations" (STC-L2).

Finally, one interviewee spoke about the need for TVET centres to provide financial support and scholarships to trainees, as well as financial incentives for good performance. A common recommendation to improve teachers' morale and motivation is to financially reward those who perform up to standard: "TVET centres must differentiate between professional and non-professional trainers in giving allowances (bonuses)" (CITC-G1); "there must be positive discrimination in the appraisal system in evaluating trainers (annual increments [in salaries] will distinguish depending on what trainers did through the year)" (CITC-D4).

***Trainers***

Most interviewees spoke about the requirement for trainers to be qualified in the "techniques of teaching" (CITC-D3) and certified to teach: "they must be qualified, certified and professional in the field of training to develop trainees." (CISCO-G3); "Their quality must be high to transfer information" (CITC-D7); "Trainers must have comprehensive qualifications in education and methodology" (CISCO-L1).

To maintain high quality, several interviewees emphasised the importance of trainers having a desire for self-improvement, which requires self-directed, independent learning; accordingly, they must be provided with opportunities for such professional development. This will ensure trainers are updated with new learning techniques, emerging technologies, new curriculum resources, etc.: "[Trainers] must have self-development. Every year, they must be updated. Also, the authority they work in must give them the chance to develop and remain updated" (CITC-D4). Not only is self-development vital to ensure high-quality teaching, but it also fosters and instils a mindset of continuous improvement and development in trainers.

Interviewees described the significance of training methods on students' learning and understanding. In particular, they mentioned that "trainers must teach trainees in an easy way. As long as they give clear information about a specific subject, trainees will do well" (CISCO-L1). This relates to the emerging view that Saudi education should change from traditional dogmatic indoctrination, regurgitation, and rote-learning methods common in Arab regions, to more experiential and active pedagogical methods. As a Cisco graduate stated: "For trainers, [they must] change the way of teaching to give interest to students' application not indoctrination. Whenever I got involved [in] practice, I learn everything faster" (CISCO-G4).

Furthermore, it was suggested that educators should be proactive and themselves interact with authorities and private companies to better appreciate labour-market expectations of graduate skills: "They must interact with authorities to know the required skills in the labour market for ICT companies" (CITC-D6); "They must visit the labour market or sectors (electronics or telecom companies) to get a lot of information about their requirements" (STC-L1).

With regards to teacher's attitudes, a CITC graduate stated that "[trainers] must have belief and desire in their work" (CITC-G1). This comment resonates with the issue of teachers lacking motivation to teach (6.2.3.1.3).

***Trainees***

A predominant issue among respondents was the negative attitude and poor work ethic of trainees, which stems from the shame culture in Saudi Arabia towards vocational jobs. Consequently, this manifests as a lack of motivation and belief in the value of vocational training: "Trainees must have intention and desire to work in that field" (CISCO-D1); "They [trainees] must have the enthusiasm and desire; they must be committed, dedicated, willing to learn" (CISCO-G3). Aside from society's poor view of TVET, low enthusiasm and interest are often consequences of students choosing the wrong career path due to a lack of information: "most students are just looking to graduate and get a certificate without being aware of their future career as it is not clear for them" (CITC-D2). Thus, several interviewees expressed the need for trainees to "know why they enter a field, with guidance from schools and universities" (CISCO-L1). It was suggested that "trainees must get experience from the outside world, ask, and look for information [about their field of study] through networking with people" (CISCO-G1).

Furthermore, it is common for students to simply enter a vocational path as a last resort after failing other more prestigious routes into higher education, which leads to indifference and indolence in the classroom: "students that register in TVET colleges graduated from school with weak qualifications and have no aims… they only seek the certificate so they can find a job" (CITC-D1).

Several respondents claimed that "[trainees] must have self-dependence in learning" (CISCO-D2). Such autodidactic discipline will only be developed if students understand the value of TVET and hence acquire a genuine interest and passion to learn – at the root of which lies culture.

***Graduates***

Many respondents argued that graduates form the essential connection between TVET authorities and private companies: "[graduates] are the link between training authorities and the labour market" (CITC-D4). As a result, their key role is to provide feedback to training authorities and centres regarding necessary improvements to ensure that the next generation of graduates is better prepared for the world of work and can meet the demands of the labour market: "[graduates] must participate in surveys, decision-making, and things that need improvement" (CISCO-D3).

Another common theme that emerged from respondents is that graduates "must prove themselves" (CISCO-G4) and "display their abilities and effectiveness in work to reflect a good image regarding their skills to their employers" (CISCO-D2). In other words, by "being effective members [of] their organisations" (CITC-G1) and demonstrating their value and competence to their colleagues, the prevalent negative image of TVET will change and companies will start to trust TVET institutions to deliver high-quality outputs: "[graduates] must be good models to reflect a good image to their colleagues, society and new employees" (STC-L3). Several interviewees mentioned that graduates "must desire self-development" (CITC-D1), particularly if working in the ICT sector where continuous learning is essential. Many also suggested that graduates keep working in the area that they studied.

***Private organisations***

The role of private companies in improving TVET across the KSA is "to contribute to social responsibility in training and employing indigenous Saudis... For example, in Cisco 15-20 Saudis go under co-op [cooperative training] for seven months and [it sends] four to five [Saudis] to America or Holland [for training]" (CISCO-D1). Another Cisco director explained that "[the] private sector [is] unwilling to invest in officials' training owing to high costs; however, the company is responsible to train him/her and invest in them" (CISCO-D2). It is thus suggested that private companies should financially invest in TVET centres.

Indeed, in a sector such as ICT that evolves very rapidly, it is unlikely for government institutes to stay up to date with the latest technology, whereas universities and private companies which create the technology can inform the institutes on the most relevant courses to deliver: "managing and updating curriculum according to practical reality and requirements in the labour sector is very important, such as courses in topology or fibre optics" (STC-D2).

### 6.2.5 Suggestions and recommendations for the future

This section provides suggestions and recommendations for the development and improvement of the TVET system, and what is required to meet the skills and employment needs of the ICT sector. It considers the role of various organisations, the development of training courses and content, the need for on-the-job and practical training, the need for training incentives, and wider issues relating to education and culture.

This section is organised according to the six themes identified earlier in the chapter; Figure 6.6 summarises the themes in this section.

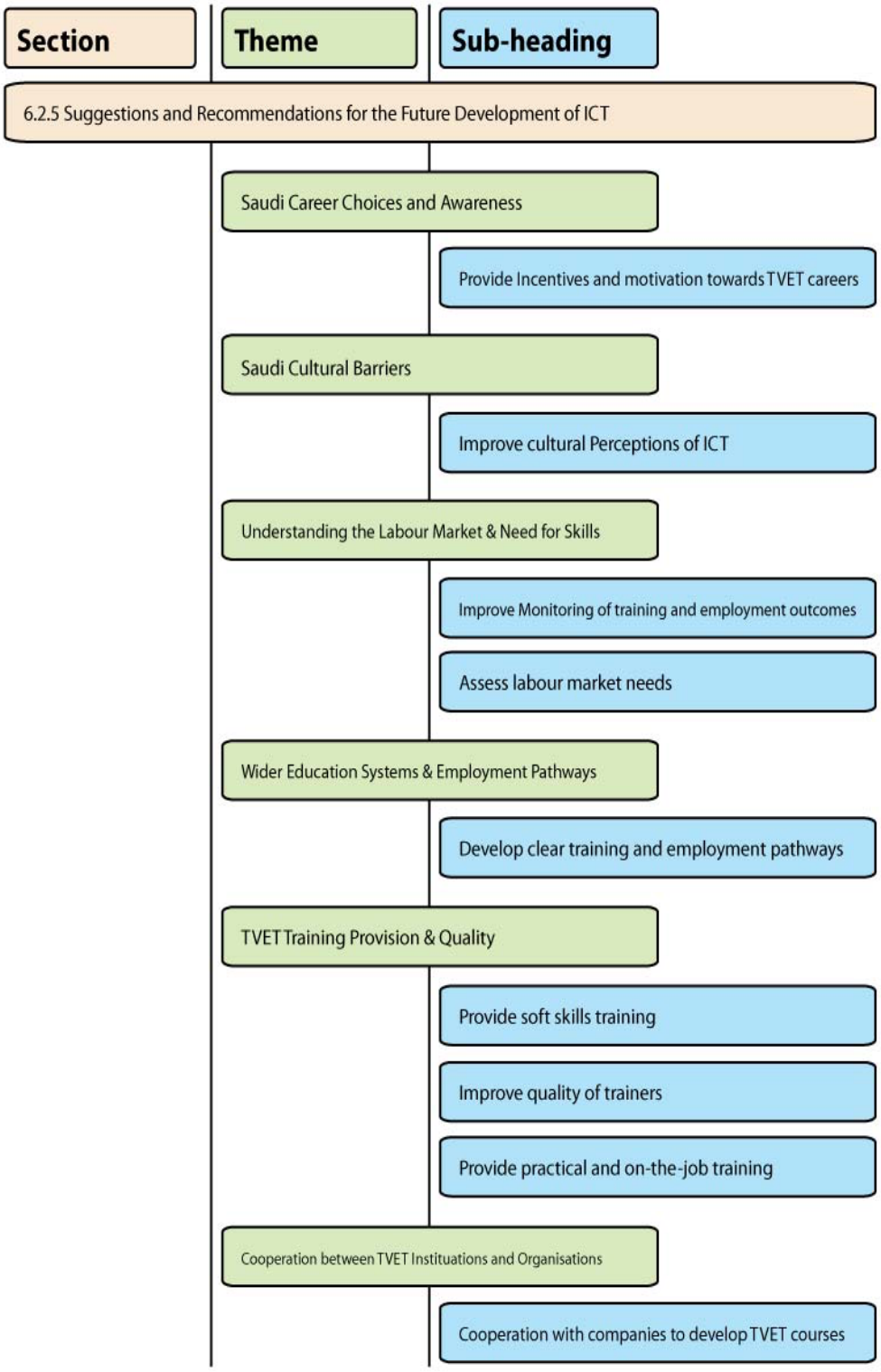



***Figure 6.6 Summary of suggestions and recommendations for the future***

#### 6.2.5.1 Saudi career choices and awareness

***6.2.5.1.1 Provide incentives and motivation towards TVET careers***

Although several respondents recognised that some progress has been made over the last three to four years with regards to changing negative attitudes towards TVET and vocational jobs, many acknowledged that more still needs to be done to increase Saudi participation in the ICT sector. The interviewees stressed that provision of financial incentives and other employment perks would encourage youths to train and work in the field: "Saudis' views and the culture about vocational jobs have changed recently, but only partially. Financial and other motivations are important to convince youth to be involved in such training programmes" (STC-D1). Another STC director explained that "most Saudis avoid hard-working vocational jobs because the income is low, but if the income is high and other incentives are offered, then they would take these jobs" (STC-D3).

It was proposed that institutions "offer scholarships" (STC-L2) and "financial support" (CISC-D2) to trainees. In the workplace, recommended suggestions to influence Saudis included "connecting training with bonuses" (STC-T2); for example: "there must be bonuses for proficient workers who exert great effort in work and training. In Aramco, allowances are given to the hard workers. This bonus makes Saudi workers increase his way of work and become enthusiastic" (CITC-D7).

In addition to financial incentives, more prestigious occupation titles and classifications can convince youths to join TVET programmes and hence increase their participation. A trainer explained: "there must be allowances for technicians. Most TVET workers are engineers. They need to be promoted to get a high rank in status but they do not have the chance to get that... Accordingly, they leave their current job to join another company to improve their status" (STC-T1).

Interviewees also cited the need to motivate employers to attract indigenous Saudis through government grants: "There must be government incentives for companies to attract Saudi youth; for example, the greater the number of Saudis attracted to a company, the more favourable terms and increased flexibility the government should provide the company in contracting and investment decisions" (STC-D1); "Organisations responsible for changing the culture and directing workers to the field must be supported through enhancements like allowances" (STC-L1). Although there are already initiatives to encourage and incentivise

employment of Saudis, it is evident that these provide insufficient motivation for companies to choose Saudi employees over expatriate employees. To improve the incentives offered in this area, interviewees highlighted the importance of financial incentives and benefits relating to investments and government allowances. These possible benefits contrast to punitive systems such as the fines imposed on companies with poor Nitaqat ratings.

#### 6.2.5.2 Saudi cultural barriers

##### *6.2.5.2.1 Improve cultural perceptions of ICT*

Most respondents stressed the importance of changing the shame culture currently associated with TVET and vocational employment by clarifying their importance: "the negative culture of vocational and technical jobs must be changed by informing Saudis that all these jobs can benefit the ICT industry in our country" (CISCO-G3). The interviews imply that positive awareness campaigns that position TVET and vocational work as beneficial to the economy would improve the status and prestige of these roles. A director stated:

> the imposition of some laws and policies can also help to change society's inferior view of TVET and vocational jobs. For example, in the past, working in gold shops, the vegetable market, as cashiers in McDonalds, as cooks, or as taxi drivers was shameful, but today we find Saudisation in these areas. (CITC-D2)

The notion of increased cooperation between training authorities, government bodies and the media to spread knowledge about TVET was also cited: "There must be cooperation between TVET and the Ministry of Culture and media as they play a great role in attracting youth through mass media" (CITC-D4).

According to the interviewees, it is crucial to give greater attention to the role of school education in changing the negative perception of young Saudis towards TVET: "there must be technical and vocational edification from primary school about vocational jobs" (CITC-G1); "there must be technical and vocational labs [at school] to give a good perception and spread the positive culture of TVET" (STC-L2); "there must be knowledge and practice at schools before universities. Employees must know how he/she will benefit from vocational or technical skills" (CISCO-G1). As the last quote indicates, introducing TVET to Saudis at a younger age will provide a better understanding of how TVET can prepare and equip them for the labour market, instilling interest in the field and significantly influencing indigenous Saudi participation in the ICT sector. A Cisco director commented: "there must be a combination of

term-time school education and training as well as work in the summer. If this is applied from grade 9 for the next three or four years, it would be beneficial in changing the mindset of the young generation" (CISCO-D3). A CITC director elaborated: "increasing awareness has a great role. For example, I know a person who is appointed as a security guard. His dad tells him to resign despite taking SR7,000 as salary. His father's Saudi culture, the inferiority associated with those who work in the field and as technicians, reduces the chances of getting married" (CITC-D4). Evidently social and family pressures play a significant role in deterring Saudis from vocational jobs, so changes are needed to reverse the low status of such jobs.

One graduate at Cisco claimed that TVET has recently started at primary and intermediate stages but that school tutors are not qualified and teach theoretically rather than practically. It is vital that all educators are highly qualified and trained in vocational pedagogical methods. Moreover, some interviewees suggested modifying teaching techniques to ones that impart the values of self-education and self-improvement: "Schools must stop rote-learning education and must activate the role of discussion" (CISCO-G2). This would help to improve Saudis' work ethic.

#### 6.2.5.3 Understanding the labour market and need for skills

##### *6.2.5.3.1 Improve monitoring of training and employment outcomes*

Several interviewees mentioned the necessity for "an official measuring [assessment] system" (STC-T2) to ensure that all trainees surpass a minimum level of skill to graduate. Examples of evaluation include: "placement or skills tests prior to graduation or upon early employment" (STC-L3), and "a report every three to six months to evaluate this person and determine weakness and strength points" (STC-L1). The adoption of quality assurance standards and procedures would benchmark educational institutes against one another, and against other international institutions, thereby enabling them to more easily determine weaknesses and opportunities for growth and improvement, and to adopt global best practices. Official monitoring and control procedures would generate constructive competition between training institutions and should theoretically realign their targets to gauge both quantity and quality of graduates, rather than solely pursuing high graduation rates, as a Cisco graduate commented: "TVET institutions must monitor training quality and the skills and qualifications of its graduates, not only consider the number of students who graduate" (CISCO-G2). Some interviewees acknowledged the potential difficulty in enforcing such standards, and thus

suggested imposing strict rules to control those noncompliant institutes: "The TVTC, Ministry of Labour and Ministry of Education should penalise on universities or faculties that are not implementing the rules and achieving the goals" (CISCO-G2). A penalty suggested by a CITC director is to "not give labour licences to substandard institutions" (CITC-D3). To ensure that standards reflect the quality required by the market, respondents advised that TVET authorities use international benchmarks: "to improve graduates' skills, we can look at other systems such as the UK system and use their standards adjusted to suit the community" (CITC-D4).

#### *6.2.5.3.2 Assess labour market needs*

It is clear that employers need to be persuaded to start recognising training certificates as accredited diplomas of equal weight to university degrees. Although increased confidence in the system should occur organically as TVET curricula and training quality improve, it was noted that such cultural changes tend to be slow. Thus, incentives could be applied to accelerate the change. Indeed, labour market assurance in TVET is equally significant to increased Saudi involvement, considering that increased demand for diploma graduates will help to drive Saudi youths towards choosing the vocational path.

Interviewees emphasised that TVET courses must consider geographical differences due to the different skills demanded in different cities throughout KSA in order to better accommodate labour market needs: "training authorities must study labour market needs and the type of skills needed in each city in KSA" (CITC-G1).

A director stressed the need to balance job distribution between males and females and to determine Saudisation for particular jobs within the labour market: "there must be Saudisation and feminisation in specific jobs. It should be obligated for companies to employ a certain number of Saudi men and women in specific kinds of jobs such as technical and vocational jobs rather than keep Saudisation open and general" (CITC-D2).

Several interviewees proposed a quota system, such as Nitaqat, to encourage companies to comply with Saudisation: "there is a strong relation between TVTC and the Ministry of Labour in imposing legislations like Nitaqat (red, yellow and green coding system) but there is fraud that hinders achieving goals. If your Nitaqat colour is green, you will get all your services, unlike red" (CITC-G1). As noted previously (6.2.1.3.2), other interviewees mentioned the

failure of Saudisation to reach the planned target for indigenous participation rates – the sector is still highly dependent on expatriates.

#### 6.2.5.4 Wider education systems and employment pathways

##### *6.2.5.4.1 Develop clear training and employment pathways*

Another proposition presented by the interviewees to improve TVET course content regards the development of multiple training paths that offer more specialisations, where each path targets the skill requirements of a specific field in ICT: "We must focus on developing several vocational frameworks for each specialty in ICT" (CISCO-D3). Other interviewees stated: "the most important part is for the training track to include specific courses like introduction to transmission, IT, DWDM, operations, etc." (STC-T1); "TVET must have specialised training tracks related to one's future career, rather than teaching students subjects/modules they won't use in practice" (CITC-G1). The provision of a greater variety of highly concentrated and focused specialisations will help to address the concern that TVET currently equips graduates with only a broad skillset rather than skills required by various ICT divisions. It was also advised that TVET institutions adopt successful training models currently in use by the labour market: "educational institutions must consider successful models used in the labour market and apply them in their educational system" (CISCO-G2). This view was reinforced by trainers in CITC and STC: "I would teach my students the curricula/track they would use in the labour market; for example, I would teach the training tracks of Oracle, Cisco and Juniper as specialisations" (CITC-T2); "TVTC should use the frameworks applied in international companies like Cisco, Oracle and Juniper and follow them in technical and vocational training" (STC-T2). The latter recommendation again calls for increased collaboration between the private sector and TVET in KSA.

#### 6.2.5.5 TVET provision and quality

##### *6.2.5.5.1 Provide soft skills training*

Other proposals for improvement to course content related to specific skills required by the labour-market. In particular, interview responses stressed the market's expectation for graduates to be highly proficient in soft skills, such as communication, English language, and behavioural skills: "courses on communication skills must be taught so that students are professionals" (CISCO-D2); "English skills, attitudes and communication skills are essential to

be considered for a job placement in the ICT sector… thus workers must have training in communication skills, English language and other soft skills" (CISCO-D1).

#### *6.2.5.5.2 Improving quality of trainers*

Aside from measures to improve TVET and university course content, many interviewees mentioned the need to "improve the selection of trainers and attract qualified trainers" (STC-L3), with some advising to bring in qualified "international trainers" (CISCO-G4) to impart their methods to current teachers. This suggestion was supported by an STC learner: "TVET must contract with big companies to improve the method of training as trainers are weak" (STC-L3). One interviewee suggested that educators should be trained to "international standards and certifications" (CISCO-D3) to raise the national standard of teaching in line with global standards.

#### *6.2.5.5.3 Provide practical and on-the- job training*

Many respondents commented that training curricula currently lack enough practical, real-time work experience, resulting in graduates unable to adapt well to their jobs. Thus, a popular recommendation to enhance training was for courses to incorporate a greater number of practical hours: "practical training must be included… in all levels of study, not only during the last year. Courses should require students to practice at least 1-2 months per semester, which will result in superior skill levels and hence better qualified graduates" (CISCO-G4); "graduates [should be sent] to different companies to obtain experience according to their specialisations" (CITC-D1). Others mentioned the highly effective workforce development model of on-the-job training: "I insist on on-the-job training" (CISCO-D3); "the best framework is training that ends with employment and on-the-job training". One interviewee suggested "open training faculties besides factories to enable students to study and practice at the same time" (CITC-G1).

Some interviewees went as far as to suggest that most training should be practical rather than theoretical: "The framework implemented for TVET should be based on 70% practice and 30% directed towards knowledge, as knowledge comes from practice" (CISCO-G4); "training programmes must be based on 20% theoretical (basics), 60% practical and 20% communication skills" (STC-L2). Indeed, workplace experience is vital to bridging the gap between employment and work by aligning expectations of the job, boosting interest in a career or company, fostering professional behaviour and soft skills, and providing essential hands-on training.

### 6.2.5.6 Cooperation between TVET institutions and organisations

#### *6.2.5.6.1 Cooperation with companies to develop TVET courses*

The interviews show that the current TVET system fails to deliver graduates that cater to labour market needs. This gap between education and practice was attributed to a fundamental disconnect in TVET authorities' understanding of what the labour market requires and expects of graduates. Accordingly, interviewees emphasised the need for educational and training authorities in the KSA (i.e. TVTC, MoL, and MoE) to collaborate with the private sector so as to better appreciate labour-market needs and hence align training provision to its demands: "there is a big gap between education and application or practice. Education must cooperate with the labour market to identify its requirements" (CITC-D7). As explained by a Cisco director, such cooperation is necessary to enable "educational authorities to keep pace with [progress and] development in IT [and thus keep their curricula updated and relevant] so that Saudi graduates are qualified and ready to work… especially in a market that changes as quickly as does IT" (CISCO-D2). Other respondents specified the importance for training authorities to involve market-driving ICT corporations in decisions regarding training content: "[The TVTC] must contract with big companies that have influence in the industry and change the training content as our qualifications are weak" (STC-L3). As a practical example, a CITC director suggested: "universities should make visits to different companies to see first-hand what is required in the labour market and develop specialised curricula for the sector" (CITC-D6). In addition, respondents mentioned the need to improve training facilities and provide up-to-date tools in colleges and universities, especially in coding and IT equipment.

Moreover, respondents expressed the need for better coordination and support among training authorities in Saudi Arabia: "if there is no integration between all government agencies to support each other and develop a clear implementation plan, whose results are measured against benchmarks, we will never progress and achieve our goal of having a suitable TVET system" (CITC-D1). This comment supports the need for governmental oversight and consistent regulation of curricula and skills development pathways, as well as the importance of monitoring and collecting evidence on the outcomes of TVET. Several interviewees suggested building strategic partnerships with international ICT companies, both inside and outside KSA, to benefit from their resources to train Saudis: "there must be cooperation with international companies that exist in Saudi Arabia like Ericsson, Nokia, HP; in Cisco, we think to send workers to train in the USA or Norway for six months or one year" (CISCO-D1).

## 6.3 Conclusion

This chapter has focused on TVET within the ICT sector in Saudi Arabia. Firstly, an overview of the sector was given, along with details about current practices and policies in the sector. The three organisations were then introduced, along with information about them (CITC, Cisco and STC) and their internal policies and practices relating to TVET.

The next section examined the primary data from interviews that were conducted with employees from CITC, Cisco, and STC. This explored the participation of indigenous Saudis in the ICT sector, the skills profiles and labour market needs, and the current TVET system. As part of the analysis, six key themes were identified and used to organise the findings. The following section discussed the responsibilities of stakeholders for improving the TVET system, identifying the roles that each should play. The final section presented a concise summary of suggestions and recommendations for improving TVET practices and policies in the future.

# 7 Saudi Tourism and Hospitality Sector Analysis Interviews from: Al-Hokair, Mövenpick and SCTH

# 7.1 Introduction and overview of the tourism-hospitality sector

This chapter considers the labour market of the tourism and hospitality sector in the KSA, and the policies and practices of TVET in relation to this market. It presents interview responses of a cross-section of stakeholders in three organisations within this sector: Al-Hokair Group, Mövenpick Hotels and the Saudi Commission for Tourism and Heritage (SCTH).

Tourism represents an important service sector for many nations worldwide. It attracts investment, generates income (in foreign currencies) and jobs, and hence improves the living standards of nations through increasing economic growth (OECD, 2017). The Saudi government has become increasingly interested in growing the tourism sector as part of its economic diversification strategy. This is evident in recent policies and legislation that encourage investment in tourism. Yet, the Saudi tourism and hospitality sector faces considerable challenges, including the reliable availability of skilled labour, especially vocational workers. This chapter discusses these issues with a focus on the link between the TVET system, skills and unemployment within the Saudi tourism and hospitality sector.

## 7.1.1 Secondary data about the tourism sector

The Saudi tourism and hospitality sector has experienced unprecedented growth in recent years. The sector is a promising area within the Saudi economic diversification strategy since Saudi Arabia has a rich cultural and religious heritage. The overall contribution to the economy is forecast to have risen 6.4% from SAR244 billion in 2016 to SAR259 billion in 2017. Tourism and hospitality currently contributes 10.2% of the Saudi economic income (WTTC, 2017). Direct contributions include the money spent as a direct result of tourism (e.g. accommodation, transport, food, retail, entertainment); indirect contributions come from investment spending by organisations or the government; induced contributions come from the spending of people employed within the tourism sector. The overall contribution of this sector is then predicted to increase 4.7% per year, on average, until 2027. Direct and overall contributions to national GDP are shown in Figure 7.1.

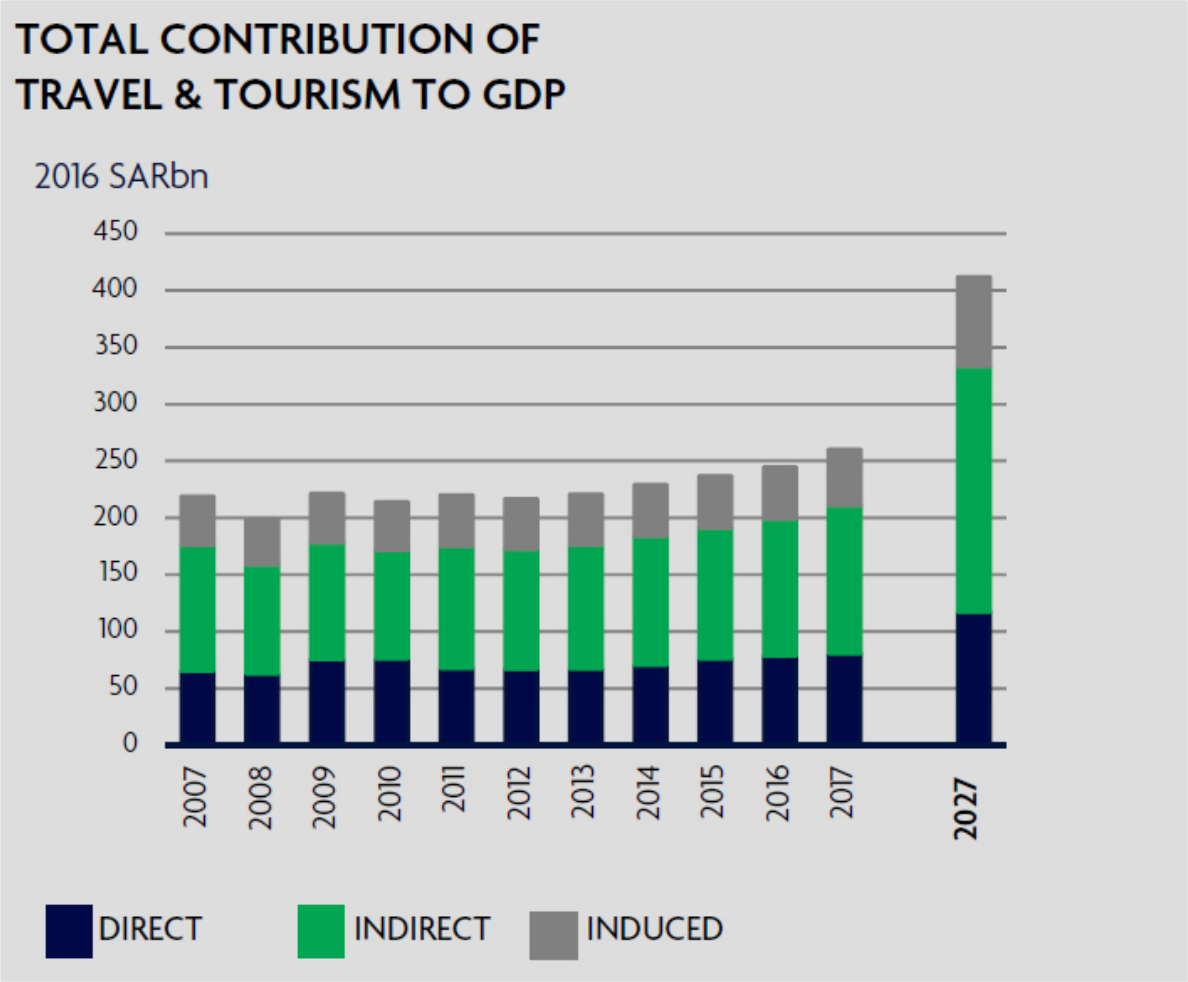



***Figure 7.1: Total contribution of the tourism and hospitality sector to KSA GDP, 2007-2017, with projected figures for 2027***

*Source: WTTC (2017)*

The tourism and hospitality sector is currently the second most important economic sector in terms of Saudisation (SCTH, 2016), and the Saudi government planning policies and incentives to make it the number one economic sector in creating jobs for indigenous Saudis. This explains the government's target of attracting more than ten million tourists by 2020 (three million from outside the Arab world) (Sadi and Henderson, 2005; Sadi, 2013) and to increase the number of jobs in the tourism and hospitality sector to 1.5 million by 2020 (Dudley, 2013; SCTH, 2016). The 2017 figure is now at 1.2 million, which means that the sector is on target to reach a figure of 1.5 million by 2020 (see Figure 7.2). Tourism and hospitality currently contributes 9.7% of jobs in the country and this is expected to rise to 10.3% by 2027 (WTTC, 2017).

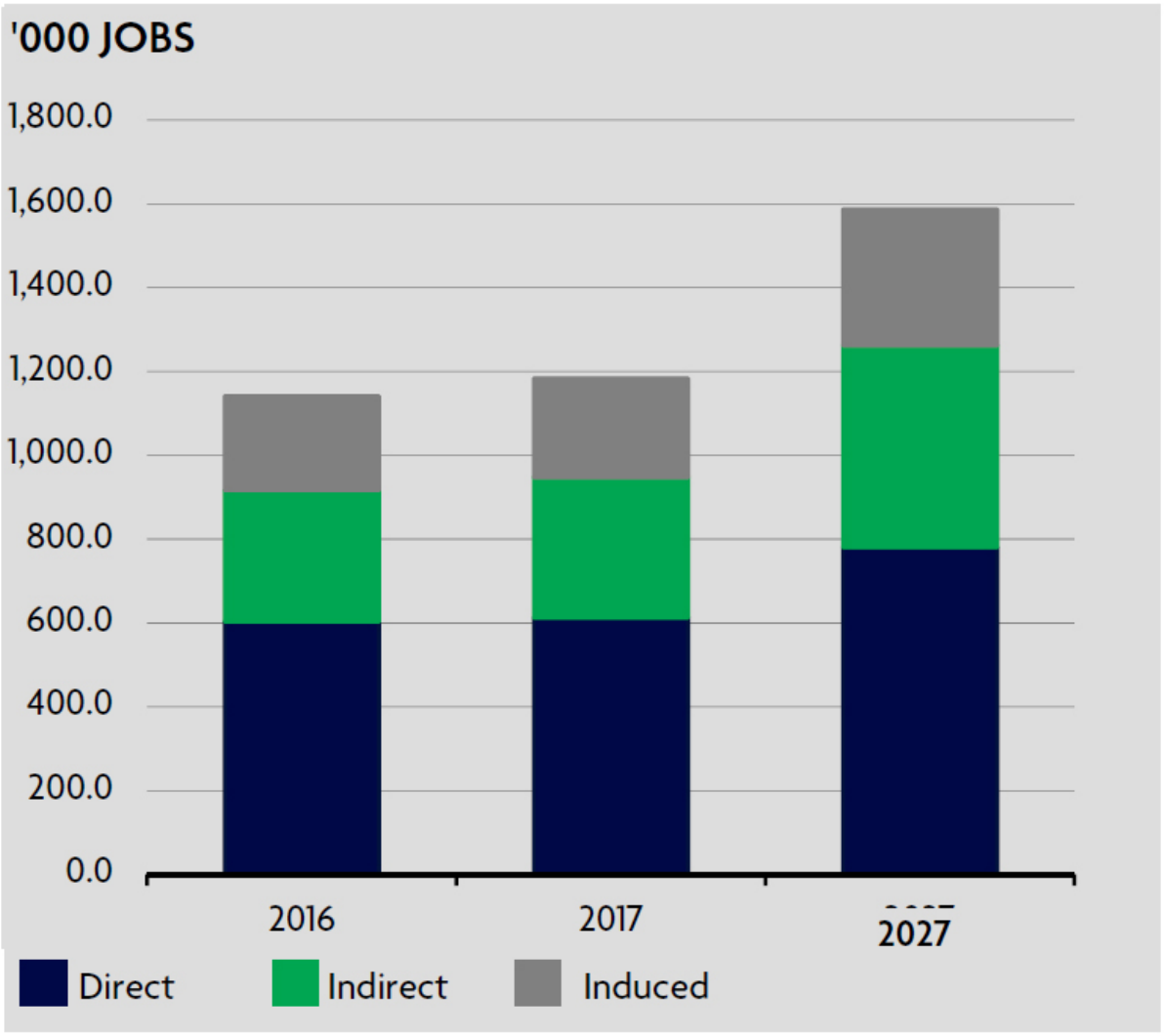



***Figure 7.2: Number of jobs in the tourism and hospitality sector, 2016-2027***

*Source: WTTC, 2017*

Between 2010 and 2015, the number of employees in the tourism industry has increased, (see Figure 7.3). However, Saudisation had remained mostly unchanged, with rates between 25.1% and 25.4% over this six-year period (GAStat, 2016).

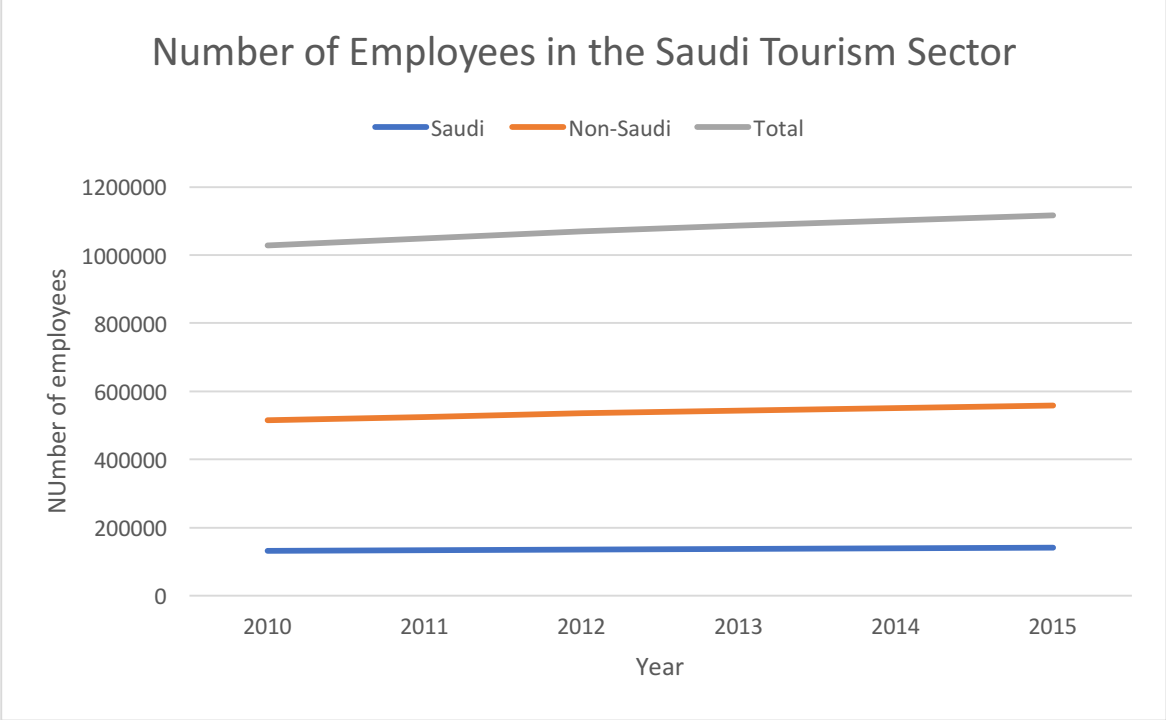



***Figure 7.3: Number of employees in the Saudi tourism sector***

*Source: General Authority for Statistics KSA (2011-16)*

The Saudi tourism sector is primarily associated with religious tourism, as Islamic sites in Saudi Arabia – mainly Mecca and Medina – attract millions of visitors every year. Annually, the Saudi government issues millions of visas to allow people to undertake the Hajj pilgrimage (which occurs in the final month of the Islamic calendar), or the Umrah pilgrimage (undertaken at any time of the year) (Dudley, 2013). Both pilgrimages account for more than ten million annual visitors (Dudley, 2013).

The government has also been implementing policies and programmes, and investing money and effort, into developing other types of tourism (Dudley, 2013). For example, the government has increased the budget of the Saudi Commission for Tourism and Antiquities (SCTA), which promotes tourism both internally and externally (Dudley, 2013), more than doubling it from SAR347 million ($93.7m) in 2009 to SAR703 million ($190m) in 2013 (SCTA, 2014).

### 7.1.2 Policies and practices related to TVET, employment and growth in the tourism and hospitality sector

Many Saudi economic policies relating to tourism are part of ambitious plans set out in Vision 2030, and they are designed to increase capacity and improve the quality of provision at existing tourism facilities, as well as to develop new areas of interest. Saudi authorities have been enhancing the infrastructure of cultural, heritage and religious sites, including Mecca and Medina (World Economic Forum, 2015). For example, multi-billion riyal projects have been implemented to increase the capacity of the religious sites and hence their annual visitor numbers. In 2015, 19 million pilgrims visited Mecca and Medina, largely accounting for the valuation of the religious tourism and hospitality sector at $5.68 billion (Jeddah Chamber, 2016). The number of pilgrims is expected to increase to around 30 million per year by 2025 (Jeddah Chamber, 2016). The government has also been attracting investment in other type of tourism, such as health tourism, business tourism and cultural and entertainment festivals (World Economic Forum, 2015), as well as supporting growth in other ways. For example, together with other GCC countries, Saudi Arabia introduced a single Schengen-style visa (World Economic Forum, 2015). Diversifying the economic inputs, improving employment figures and creating more jobs for indigenous workers are key to these policies (Dudley, 2013).

#### 7.1.2.1. General targets and strategies for developing the tourism sector

Although pilgrimage to Mecca and Medina has existed for more than 1,400 years, the Saudi authorities have only recently embarked on the necessary policies to develop this important sector. In 2000, the Saudi Council of Ministers established the Supreme Commission for Tourism (SCT) with the aim of retaining Saudi tourists within the country, increasing investment opportunities, developing human resources, and expanding and creating new job opportunities for indigenous Saudis by developing the tourism and hospitality sector (SCTH, 2016).

The SCTA's national Tourism Development Strategy was published in 2000 and has two phases. The first ended in 2002 and resulted in a general policy for the development and improvement of the tourism sector up to 2020. The second phase draws from learning and recommendations of the ongoing work in the first phase and has introduced a five-year

development plan for all 13 Saudi provinces (SCTA, 2014). The National Project for Tourism Human Resources Development (Ya Hala) is managed by SCTA and is responsible for "the general strategy to develop and qualify a national work force to operate in the tourism sector", through which a regulatory and institutional environment has been developed for national human resources development (SCTA, 2014). The agencies cooperating on this initiative include the Ministry of Education, the Ministry of Labour, the Ministry of Interior, the Ministry of Hajj, the General Organisation for Technical Education and Vocational Training (TVTC), the Institute of Public Administration, and the Human Resources Development Fund (HRDF). This research has interviewed stakeholders from four of these seven agencies.

Saudi government policy in tourism has four main goals, (SCTA, 2014). First, the nationalisation of tourism occupations aims to generate job opportunities for indigenous Saudis in the tourism and hospitality sector, hence reducing unemployment and creating economic benefits. It also seeks to improve social and economic stability by recruiting, developing, and sustaining indigenous workers.

The second goal is to increase public awareness of the tourism sector by utilising various media to educate the public about the benefits of tourism and hospitality, and by improving work ethic through seminars, symposia, and festivals.

The third goal is to establish and improve partnerships among university, colleges, private and public-sector institutions by cooperating with public and private educational and training institutions, thereby aligning efforts and methods in the field of tourism and hospitality training.

The fourth goal is to increase investment in tourism HR by supporting establishments to train their employees at all occupational levels and to improve productivity through enhancing capabilities and performance. It also aims to send some employees to study locally or abroad in various tourism and hospitality specialisations, to train people in old crafts and encourage and support them to start their own projects or companies, or to partner with different companies to create incubators in the field of tourism and hospitality and help craftspeople to market their products.

Training and education are central to all areas of growth in the tourism sector, as streams of skilled employees are required to meet the needs of expansion. This will enable organisations to expand and meet Saudisation targets.

During the Global Competitiveness Forum in 2014, Prince Sultan Bin Salman – president of SCTA – gave a talk about 'Competitiveness and Tourism' in Saudi Arabia. He confirmed that the tourism initiative is backed and fully supported by the government and is based on partnership and integration between the public and private sectors in addition to the local community (SCTH, 2016). He explained the intentions to encourage, develop and enhance the competitiveness of the national tourism and hospitality sector both regionally and internationally, and the need to capitalise on the "unique and important geographical location which had intersected world civilizations", noting that Saudi Arabia is at the heart of "ancient trade routes, cultural and historic events that had taken place in the Arabian Peninsula through the ages" and is "the cradle of Islam and the heart of the Arabic World"(SCTH, 2016). Prince emphasised the many resources in the kingdom and how involving youth could realise the potential of this sector (SCTH, 2016).

In part, due to the efforts of the Saudi government in the last five years, the tourism and hospitality industry in Saudi Arabia was valued at US$21.33 billion in 2015 (WTTC, 2017). It contributes 2.7% to annual growth of Gross Domestic Product (GDP), which makes it the second highest contributor to GDP growth after petroleum (Jeddah Chamber, 2016; SCTH, 2016). Reports by the World Economic Forum (WEF) show that Saudi Arabia has climbed seven places from 71st in 2009 to 64th in 2015 on the Global Travel and Tourism Competitiveness Index (TTCI). This index grades countries in 14 key areas relating to the tourism sector. These are organised into three sub-sections, which assess a country's regulatory framework, its business environment and infrastructure, and the availability of human, cultural and natural resources. These are each graded on a six-point scale (further details are given in Table 7.1). Many of these scales relate to the policies, regulations and infrastructure put in place to aid the development of business in the sector, all of which are dependent on governance. Human resources are also assessed, and the availability of skilled labour in tourism-related fields obviously impacts on this. As shown in Table 7.1, the national ranking for scales relating to labour, training and skills has dropped from 34th to 74th place. However, the KSA has risen in the rankings for "prioritisation of tourism", and also risen in the overall ranking of "human, cultural and natural resources". The latter of these improvements is most likely attributable to the development of cultural and natural resources connected to the country's rich history, reflecting a strength in this sector.

Table 7.1: Comparison of relevant areas of World Economic Forum travel and tourism competitiveness index 2010 and 2015, showing Saudi Arabia's global ranking in each area

| Travel & Tourism Competitiveness Index (TTCI) | 2010 | 2015 |
|---|---|---|
| TTCI regulatory framework | 81st | 111th (declined) |
| Policy rules and regulations | 43rd | - |
| Prioritisation of travel & tourism | 88th | 76th (improved) |
| TTCI human, cultural, and natural resources | 70th | 69th (improved) |
| Human resources & labour market | 34th | 74th (declined) |
| Education and training | 42nd | 50th (declined) |
| Availability of qualified labour | 27th | 94th (declined) |

Source: World Economic Forum (2011, 2016)

Figure 7.4 shows that the number of tourists visiting KSA has steadily increased since 2000, up to the global financial crisis in 2008. Despite the downturn and greater volatility since 2008, the general trend is still positive (World Economic Forum, 2015).

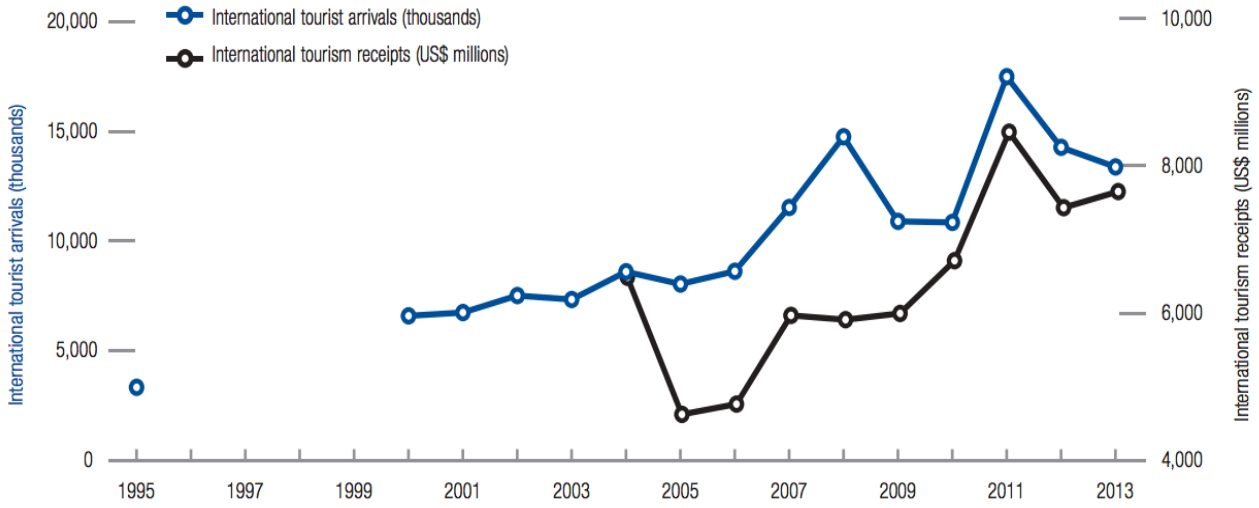



***Figure 7.4: Evolution of the Saudi travel and tourism sector***

*Source: World Economic Forum, 2015*

Although the Saudi government has made significant progress in developing strategies and policies to encourage foreign tourists to visit KSA, there remains much scope for improvement. For example, Saudi Arabia could improve its international openness (currently ranking 138th in the world), especially in relation to its strict visa restrictions (currently ranking 140th in the world), including visas for the Hajj pilgrimage (World Economic Forum, 2015). Traditionally,

the government has been quite restrictive about how many people can enter Saudi Arabia, and it has set strict criteria for entry. Obtaining a visa can be difficult, which is likely to deter some tourists (CNN, 2017). As part of the Vision 2030 plan, there is a goal to increase non-religious tourism to 30 million per year by 2030, which is almost double the 16 million tourists who visited the country in 2016 (CNN, 2017). To achieve this, a new type of tourist visa with an easier application process and less restrictive criteria is planned, with the first of these visas granted in 2018. The intention is to move away from a visa system that allows only tourists as part of a tour group to enter the kingdom to a more flexible visa system (Dudley, 2013).

Moreover, in relation to tourism and hospitality infrastructure Saudi Arabia needs to attract more investment (currently ranking 67th in the world), and to develop adequate environmental policies for long-term development of the tourism and hospitality sector (currently ranking 121st in the world) (World Economic Forum, 2015). Dudley (2013) argues that investment in tourism and hospitality sectors, including increasing the number of hotels and other facilities, would enable the Saudi government to achieve its target of increasing the number of jobs in the tourism sector to almost 1.3 million by 2015, double that of 2011. Dudley, 2013).

However, the policy area that needs particular consideration, and the focus of this research, is TVET and the availability of skilled vocational workers in the tourism and hospitality sector. As Table 7.1 shows, Saudi Arabia needs to improve education and training (fell from 42nd in 2010 to 50th in 2015) and enhance the availability of qualified labour (fell from 27th in 2010 to 94th in 2015) (World Economic Forum, 2015). These findings need to be investigated in light of the current policies and practices related to the tourism and hospitality sector, the subject of the next section.

#### 7.1.2.2 Specific policies relating to development of TVET and employment in tourism

An overview of the most relevant policies and initiatives is presented in Table 7.2.

Table 7.2: Overview of TVET, skills development and Saudi employment policies and incentives aimed at improving the tourism and hospitality sector

| POLICY | AIMS |
|---|---|
| Tourism targets | Target of 10 million tourists per year by 2020 |
| Visa restrictions | Easing of visa restrictions so that tourists find it easier, and are more likely, to visit the country |
| Nitaqat colour coding system | Organisations are monitored and assessed so that they can be given a colour code (red, yellow, green) to distinguish and highlight their achievements in relation to Saudisation of their employees. Incentives are given to companies achieving a green rating; those missing targets are more likely to be closed. |
| Your Job is Your Scholarship | Students entering training sign a contract with employers before starting training, to ensure that they enter the field in which they are trained and are immediately employed when they finish studies. This is a recent initiative which is not compulsory in all cases, and figures regarding outcomes of this policy are not yet available. |
| Baraa (artisan) programme | Encourages and enables women to take up employment in crafts. |
| Nationalising Tourism Occupations | Produces job opportunities for indigenous Saudis in the tourism sector and reduces unemployment rate by developing and employing Saudi skills. Also, reduces the need for expatriate employees, stabilising KSA socially and economically. This offers guidance to employers and employees to meet Saudisation targets. |
| Occupational Awareness | Raises awareness about tourism and hospitality sector and educating Saudis about its benefits. Also, improves work ethic through different activities. This policy has been |

| | |
|---|---|
| | performed via different programmes and projects and has trained over 14,000 indigenous Saudis. |
| Cooperation programmes with public and private educational and training institutions | Encourages partnership between various stakeholders to unify their efforts and processes in tourism training. Increases indigenous Saudi skills via different incentives, such as scholarships to study abroad and gain experience in tourism and hospitality specialisations. |
| Tourism HR investment | Investment in training employees in tourism sector through all its occupational levels to increase their productivity. Employers are obliged to send employees to study and train inside or outside KSA in different tourism specialisations. Also, trains craftspeople and supports them to begin their own businesses. Creates incubators in the tourism field to allow craftspeople to market their products through partnerships with different companies. |
| Responsible development | Information dissemination programme designed to encourage cooperation and develop awareness among businesses and individuals through a unified communication strategy which highlights common goals and their benefits, thus improving connections between employers, training centres and employees, and enabling growth in the sector and greater awareness of employers and employees. |
| Tamkeen | Identifies and highlights tourism assets and resources in each region, enabling local companies to develop jobs and investment opportunities. Encourages domestic tourism and supports competition between private companies. |
| Live Saudi Arabia | Provides domestic tourism opportunities and field trips to young Saudis, to encourage them to learn about history and culture and increase awareness of tourism opportunities. |
| Committee for Promotion of Virtue and Prevention of Vice (CPVPV) | Builds relationships with religious and traditional groups and organisations, promoting tourism and encouraging adaptation that will allow growth of tourism activities in a way that is congruent with social beliefs. |

| | |
|---|---|
| Smile | A tourism awareness programme which provides training to school teachers. These teachers then provide tourism education programmes in schools to their students, with more than 350,000 children taking part so far. |
| Tourism & Antiquities Security Forum | Provides skills training and preventative measures for the protection of heritage sites and antiquities. |
| Tourism Licensing | An online platform for registration and licensing of operators in the tourism industry, which provides information on activities and promotes investment in tourism companies. |
| Saudi Travel and Tourism Investment Market | Organises events which increase awareness of the tourism industry within KSA, allowing collaboration between different companies. |
| National Built Heritage Forum | Responsible for organisation and investment in the renovation and restoration of heritage sites, so that they can be beneficial to the tourism industry. |

One of the practices related to TVET and employment in the tourism and hospitality sector is "responsible development", undertaken by SCTH. The Responsible Development campaign is cooperation between several organisations including Saudi Credit and Saving Bank, the Ministry of Education, Ministry of Transportation, Ministry of Interior, Ministry of Municipal and Rural Affairs, and the Ministry of Culture and Information. The role of the campaign is to increase tourism awareness, preserve the environment, provide job opportunities, provide tourism information, develop handicrafts, encourage domestic tourism, improve the quality of tourist accommodation, stimulate tourism investment, provide tourism information, and research (SCTH, 2017). To achieve these goals "requires an integrated institutional communication campaign to bridge the gap between negative impression and achievements on the ground through a major media campaign under the new slogan 'Responsible development' to highlight the responsible development and the achievements made by SCTH on the ground" (SCTH, 2017). Since some claimed there was a lack of information about SCTH's role and mission, the Responsible Development campaign is to announce SCTH achievements in the tourism sector, and its collaboration with the different organisations mentioned above, in order to develop this sector by sharing the responsibility of tourism implementation and development and to fulfil its objectives (SCTH, 2017).

The Tamkeen (meaning "stabilising" or "enabling") initiative aims to move towards decentralised management in tourism, transforming the role SCTH performs for private tourism organisations and promoting competition between private companies in the sector. It identifies the assets and resources available in each region and highlights what domestic tourism offers to the provinces, such as added value, income, jobs and, investments opportunities (SCTH, 2017).

Live Saudi Arabia is a programme adopted by SCTH, in collaboration with public and private authorities. The programme organises tourist trips for young people to different parts of Saudi Arabia, allowing them to get better acquainted with their national heritage and culture (SCTH, 2017).

The Tourism Enriches initiative began in 2008 to raise the awareness of tourism and culture and to enhance the positive effects of tourism through awareness workshops. It also conducted surveys that found that 67% of respondents believe tourism has a direct and positive impact on communities, whereas only 1% believe it has a negative impact. Of those taking part in workshops, 96% said that they would consider working in the tourism sector, and 98% agreed that there was a need to raise awareness about tourism in all Saudi regions (SCTH, 2017).

The SCTH has made great efforts to build its relationships with tourism organisations, using solid evidence while also adhering to traditional morals and religious beliefs. The most important organisation in this respect is the General Presidency for the Promotion of Virtue and Prevention of Vice – CPVPV (Haya). The CPVPV aims to create mutual understanding between tourism and the local community, especially where the absence of such an important relationship may prevent SCTH efforts to achieve a successful breakthrough with the social institutions that overlap directly and indirectly with tourism activity. It is part of a strategy to develop public relations in this sector (SCTH, 2017).

A tourism education programme named "Smile" started in 2004 and aims to encourage schoolchildren to participate in tourism jobs; it reinforces principles of respect, understanding and acceptance of other cultures. The first stage of this programme focused on trainers and teachers; the second, it focused on students in middle and secondary-level education. Trainers are selected based on their experience of training and activities in the field, and from 2006 to

2010 more than 360,000 male and female students have been trained across KSA (SCTH, 2017).

The Tourism and Antiquities Security Forum, a collaboration between SCTH and the Ministry of Interior, is responsible for the security and safety of tourism and antiquities in KSA and for improving the skills of tourism workers. Lessons are learned from the experiences of other countries such as Egypt, Jordan, Spain, and Morocco, which were visited by teams from the SCTH and Ministry of Interior to gather experience in the field (SCTH, 2017).

Tourism Licensing is an SCTH initiative, which provides an online platform to facilitate efficient licensing procedures and to monitor and promote high-quality services in tourism. It also provides an attractive environment for tourism investment, and it fulfils the goal of transformation to e-government procedures. By using electronic applications for licensing of different types of tourism activities, it creates a central database and information system for tourism companies supported and licenced by SCTH, such as tour operators, tourism accommodation, tourism and travel agencies, tourism guidance, timeshare programmes, and booking offices for accommodation (SCTH, 2016).

The Saudi Travel and Tourism Investment Market (STTIM) held an event in 2008, under the name of "Tourism is the forum of all industries". It promotes awareness and communication within the tourism sector and it enables companies to discover the latest sector trends, such as tourism products, destinations and investment opportunities, and to overcome obstacles by cooperating with the public sector to merit entrepreneurs and investors and encourage them to invest in tourism. The Forum has attracted more than 100,000 visitors over the last nine years, including decision-makers in government departments; investment company officials, hotels, airlines and companies related to the tourism industry, as well as tourism job-seekers. (STTIM, 2017).

"Sauditourism.sa" is an electronic website that contains all tourism information in KSA related to sites, palaces to visit, activities and events. It also facilitates and provides visitor services, such as hotel accommodation, tour guides, and transportation (Saudi Tourism, 2017).

The National Built Heritage Forum (NBHF) was launched in 2013. Its main goals are to recondition and protect heritage sites and to encourage opportunities for investment in those sites. It also spreads awareness of heritage resources to create a Saudi generation who appreciate and value their national heritage, and it empowers stakeholders' partnerships to advance the development of the tourism sector. A National Built Heritage Centre was established to prevent deterioration of heritage sites through investment and coordination with different stakeholders (NBHF, 2017).

The Saudi government has also set out policies for encouraging the participation of women in the labour market, such as the National vocational programme (BARAA) for craftmaking. Yet, Saudi Arabia has a long way to go in terms of women's inclusion in the labour market. Sadi and Henderson (2005) argue that "the male-dominated workforce may have to make room for the entry of more women at some stage, and educational institutions restricted to women should be encouraged to introduce hospitality and tourism studies into the curriculum" (Sadi and Henderson, 2005, p. 255).

### 7.1.3 Introduction to key organisations

#### 7.1.3.1 Al-Hokair Group

Al-Hokair Group is a leading organisation in the Saudi tourism and hospitality sector. It was formed in 1975 and has since expanded to operate more than 4,000 rooms in 34 hotels distributed across 12 cities in Saudi Arabia and United Arab Emirates (Al-Hokair, 2017a). They not only run their own hotels but also provide training and services to other hoteliers, including large companies such as Hilton, Radisson, Holiday Inn, and Novotel. It has set up a community and development programme called Ataa, which promotes partnerships between the private and governmental sectors, supporting education, rehabilitation, training, and employment of Saudi youth to help them enter professional fields with the relevant skills (Al-Hokair, 2017b). The group currently employs around 4,100 people (Al-Hokair, 2017a). Al-Hokair have also been working to increase the number of female staff in higher positions within the company, including the appointment of the first female hotel manager in KSA (Al-Hokair, 2017c), and the first female head chef in one of its restaurants (Al-Hokair, 2017d).

Al-Hokair has recently signed up to various programmes and initiatives, working with the government to provide skills development and recruitment conferences, and to support Saudisation and improve the skills of the indigenous workforce. This is an agreement with the Ministry of Labour and Social Development and the SCTH (Al-Hokair, 2017d). Al-Hokair has set out a policy related to the minimum skills required for workers in the field. Each trainee must keep a passport, outlining their skills, awards, experience and achievements, which allows them to work in hotels. These core skills are focused on providing services and they include soft skills such as communication, teamwork, use of IT and language skills, plus more specialised areas such as marketing, catering, promotion, and events organisation. Different roles require different skills, which are communicated using the passport. Al-Hokair are also responsible for managing their employees and for implementing regulations and policies set out by the government.

#### 7.1.3.2 Mövenpick Hotels

Mövenpick is a renowned international hotel and resort management organisation operating 83 hotels, resorts and cruise ships in 24 countries and employing more than 16,000 staff members (Hospitality Net, 2017). Mövenpick is a Swiss organisation headquartered in central Switzerland and specialises in business and conference hotels, in addition to holiday resorts (Hospitality Net, 2017). Within KSA it has 11 hotels, with plans to launch more projects in the future (Hospitality Net, 2009).

The company organises training events and courses as part of its Academy. These usually take place across Europe and provide an opportunity for hotel staff to develop their skills. The Academy has developed its own curriculum focusing on leadership, management and sales. Mövenpick hotels in Saudi Arabia are also able to send their staff to join these courses. They also have a Talent Development centre which focuses on management trainees, and which pairs them with a mentor to guide their development (Mövenpick, 2017).

Mövenpick has developed its in-house training programme to focus on management and leadership positions, but relies on recruitment of skilled staff to fill other roles. The company also recruits apprentice staff who are given basic education and skills training within the company, either within the Movenpick Hotel and Resort scheme which develops staff skills

internally (Mövenpick, 2017), or with the Marche International food catering scheme which is an independent training centre for chefs and caterers (Marche International, 2017).

Table 7.3. Internal training and development initiatives at Mövenpick

| Initiative | Description |
|---|---|
| The Academy | Organises training events and courses for employees, with curriculum developed by the company to meet its specific skills needs. |
| Talent Development Centre | Focused on developing management trainees by giving them a mentor and providing formal development planning and guidance. |
| Hotel and Resort Scheme | Basic training programme for new recruits to develop essential skills within the company. |
| Marche International Catering Scheme | Partnership programme with Marche International which develops skills within the catering and hospitality departments. |

Mövenpick has set out an "employer sustainability" policy, which states:

> Sustainability as an employer means achieving excellence in human resources and leadership practices while embracing and celebrating diversity. Through the application of the values, Mövenpick Hotels & Resorts is committed to foster a culture that consistently improves employee engagement, development, wellbeing, safety, and security. (Mövenpick, 2017)

They also have an employment and development programme which focuses on developing staff in-house and employing external trainers to develop skills, with the aim of retaining staff and enabling them to take on further responsibilities. They currently recruit employees largely from TVTC colleges and Al-Hokair training centres but are open to applications from all groups within KSA and also to expats from outside the country. Mövenpick advertise and recruit people via education and employment fairs, and they host one of the largest fairs of this kind in KSA (Higher Education and Career Fair, 2017).

Mövenpick has partnered with Green Globe in order to set high standards for sustainability and to obtain certification in environmentally friendly business practices. They have implemented Green Globe guidelines as part of their policy; these guidelines include the training of staff in how to work sustainably (Green Globe, 2010).

#### 7.1.3.3 The Saudi Commission for Tourism and National Heritage (SCTH)

The SCTH is the government agency responsible for tourism and heritage in the Kingdom (SCTH, 2016). It encourages and supports domestic and international tourism by sponsoring and conducting tourism events and overcoming obstacles to growth of the sector. It was established in 2000 under the name Supreme Commission for Tourism (SCT), before changing its name to the Saudi Commission for Tourism and Antiquities (SCTA) in 2008, then becoming SCTH in 2015 (SCTH, 2016). At present, it employs roughly 400 people (Zawya, 2017). SCTH is commissioned by the Saudi government to manage, organise, develop, and promote of tourism and hospitality (SCTH, 2016). Their work also includes the preservation, development, and promotion of antiquities in the context of cultural and economic development (SCTH, 2016).

The SCTH has worked on an umbrella programme with the United Nations Development Programme (UNDP, 2010) to increase the capacity of its tourism industry by improving routes to employment, developing skills and increasing the tourism market size. This long-term initiative provides an advisory framework for developing the sector, and aims to produce and review policy papers, development plans, and objectives. So far, the programme has developed legal procedures and regulations, which encourage private investment in the sector. It has set up the National Centre for Handicrafts and two large tourist attractions on the Red Sea coast. The programme has also trained over 100 tourism guides in rural areas and antiquity sites. The long-term aim is to increase the employment contribution of the sector from 25% of the workforce to 33% (UNDP, 2010).

In 2016, the SCTH founded the General Authority for Entertainment (GAE), which is responsible for developing the entertainment industry while also protecting cultural values. One of its goals is to reduce the need for spending on imported entertainment, which is currently estimated at US$22 billion per year (Saudi Vision 2030). So far there have been agreements with international companies to open theme parks by 2021, and conferences and entertainment events, which have not been previously held in KSA, have been organised (Gulf Business, 2016).

The Public Investment Fund, which in 2015 became overseen by the Crown Prince and the Council of Economic and Development Affairs, has committed US$3billion to developing the

entertainment industry in partnership with the newly founded GAE. This has been earmarked for opening of entertainment venues, including cinemas. Commitments have also been made to allow women to attend celebrations in locations where they have not previously been allowed (Forbes, 2017).

As part of its regulation and oversight of the tourism sector, the SCTH provides licences to companies operating in KSA. These licences must ensure that the operations of companies are aligned with the goals of Vision 2030, and that they are likely to attract investment (SCTH, 2016).

Table 7.4. Initiatives set up by the SCTH

| Initiative | Description |
|---|---|
| United Nations Development Programme partnership | Develops legal procedures and policies to enable investment from private companies in the tourism industry. |
| National Centre for Handicrafts | Supports and develops skilled craft-makers and artisans, helping them to pass on skills to others and improve their businesses. |
| General Authority for Entertainment | Responsible for growing the entertainment industry and protecting cultural value whilst doing so. |
| Public Investment Fund | Provides investment in the entertainment industry to open new facilities and promote the inclusion of women in public entertainment programmes and events. |
| SCTH Licensing | Licences are granted to private companies who operate in accordance with the goals of the SCTH and Saudi Vision 2030. Provides regulatory oversight in the sector. |

## 7.2 Interviews and analysis

Interviews within the tourism sector were divided into five sections, each addressing a different topic. These sections focus on participation of indigenous Saudis in the tourism sector (7.2.1), skills profiles and labour market needs (7.2.2), the TVET system (7.2.3), stakeholder responsibilities for development (7.2.4) and suggestions and recommendations for the future (7.2.5).

Six main themes were identified:

1. Understanding the labour market and need for skills
2. TVET provision and quality
3. Career choices and awareness
4. Cultural barriers
5. Cooperation between TVET institutions and organisations
6. Wider education systems and employment pathways

An overview of the structure of the analysis is presented in Figure 7.5.

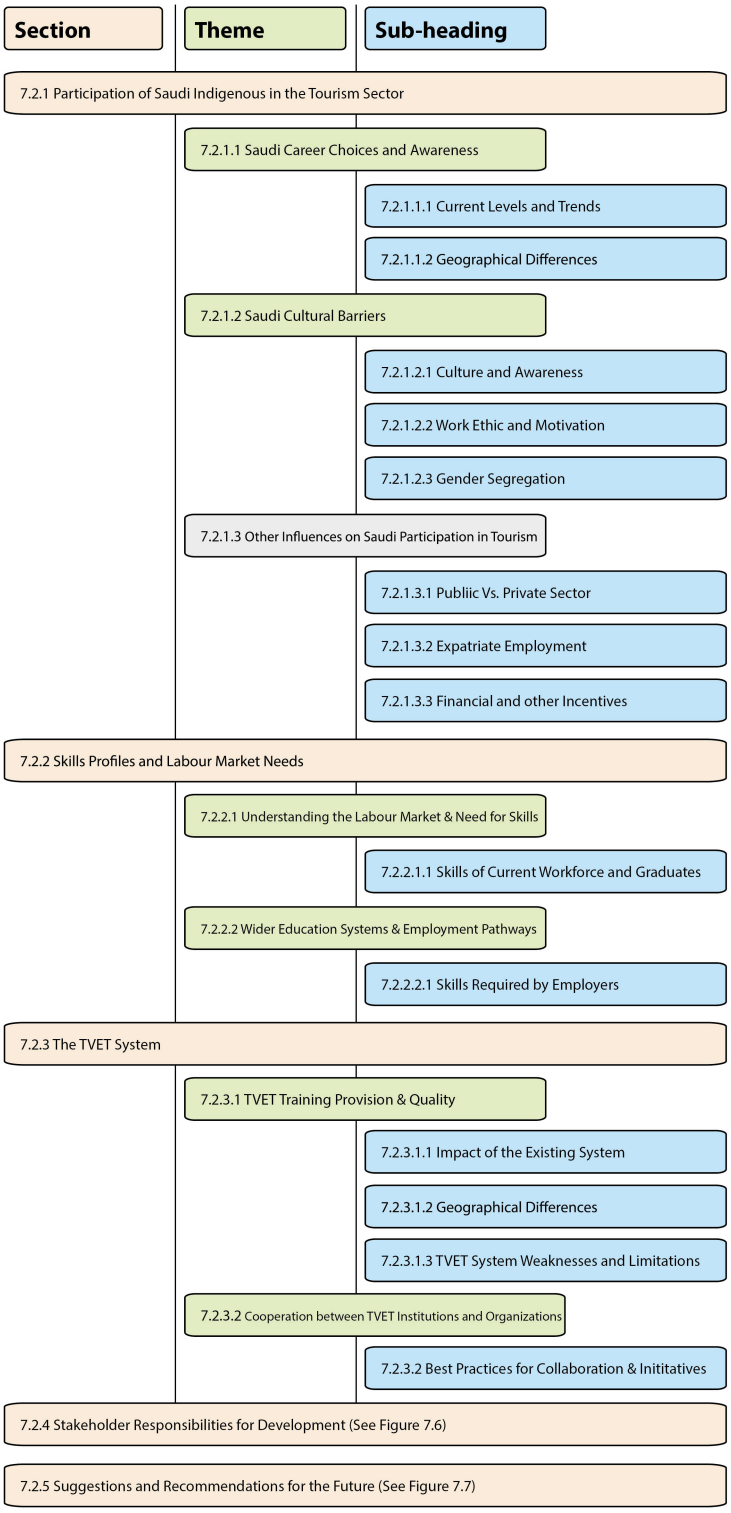



***Figure 7.5: Qualitative analysis structure, including sections, themes, and sub-themes***

Each interviewee is identified, for the purpose of quotation, by their company name and their role, as shown in Table 7.5.

Table 7.5: Interviewee references and positions within each company

| Interviewee reference | Position | Interviewee reference | Position |
|---|---|---|---|
| STCH-D1 | Manager | Al-Hokair–T2 | Trainer |
| STCH -D2 | Administration Manager of Tourist & Vocational Employment | Al-Hokair - G1 | Graduate |
| STCH –D3 | Manager | Al-Hokair – L1 | Trainee |
| STCH –D4 | Administration Manager of Training | Al-Hokair – L2 | Trainee |
| STCH –D5 | Organisational Excellence Manager | Mövenpick - D1 | Manager |
| STCH –G1 | Senior Researcher (Graduate) | Mövenpick - D2 | Personal Assistant |
| STCH –G2 | HR Specialist (Graduate) | Mövenpick - D3 | Front Office Manager |
| STCH –T1 | Trainer | Mövenpick - T1 | Training Supervisor |
| Al-Hokair - D1 | Manager | Mövenpick - T2 | Training Supervisor |
| Al-Hokair - D2 | General Operator Representative | Mövenpick - L1 | Front Office Trainee |
| Al-Hokair - D3 | Manager | Mövenpick - L2 | Reservation Agent Trainee |
| Al-Hokair - T1 | Trainer | Mövenpick – G1 | Sales & Marketing Coordinator (Graduate) |

### 7.2.1 Participation of indigenous Saudis in the tourism sector

This section focuses on factors influencing the current level of participation of indigenous Saudis in the tourism sector, and the trends relating to employment, training, and participation. It includes two main themes identified through analysis: career choices and awareness; and cultural barriers.

#### 7.2.1.1 Saudi career choices and awareness

##### *7.2.1.1.1 Current levels and trends*

The interviewee responses regarding participation levels of Saudi workers in the tourism sector can be divided into three distinct groups: those who regard the participation level to be high – of which there were two; those who view the participation level as moderate – of which there were eight; and those who consider Saudi participation in the tourism sector to be weak – of which there were 12, constituting the majority. Notwithstanding differences in the perceived level of development of the indigenous Saudi tourism labour pool, 11 of the 24 interviewees mentioned a noticeable change in the participation levels over the past few years. For example: "Participation is good today. There is satisfying growth in the number of Saudis working in the tourism sectors" (SCTH-D1); "I think Saudi participation is weak but it is increasing" (SCTH-G2); "At the beginning of 2010, the percentage was low but the percentage became acceptable in 2014 and 2015" (Al-Hokair-D3). As discussed by several interviewees, this marked increase in the Saudi labour pool in the tourism sector is a direct result of the government's ambitious Vision 2030 plan to diversify the economy. In particular, the tourism and national heritage industry is considered likely to become a pillar of Saudi's future economy, with the government investing US$46billion in the sector by 2020: "KSA depends only on petroleum as the first source of national income. But since the decrease in the price of petroleum in the world market, we must now find another source of income, such as tourism" (Al-Hokair-D2).

Traditionally, Saudi Arabia was characterised by notable governmental disinterest in developing the tourism industry, with authorities only willing to grant foreign tourist visas on grounds of religion or business. Although the kingdom has recently promised to relax its closed-door approach to tourism, change has been slow. As a result, the tourism industry is still in its infancy and there is much room for growth: "the Saudi hospitality sector is still a

virgin sector" (Al-Hokair-T1); "this sector needs to be developed because it is in the beginning stages. In the past, KSA supported only domestic tourism and didn't support other kinds of tourism such as amusement parks, resorts, etc. Consequently, Saudis' participation is weak due to it being a new field" (Mövenpick-L1).

The Saudi population and, in particular, the conservative religious establishment are not so keen to push the tourism agenda for fear that an influx of Western non-Muslims will threaten existing religious and social policies, such as the alcohol ban, strict dress code, and curbs on gender mixing. Therefore, the development of sea resorts and secular tourism face steep hurdles.

#### *7.2.1.1.2 Geographical differences*

As home to the two holiest sites in Islam, the religious tourism sector, unlike general tourism, is growing rapidly: "In Mecca and Medina tourism is great. Last year, in one month, over a million people came to Medina for religious purposes" (Al-Hokair-G1). While significant investments are being made to meet the growing demand from Umrah visitors, the tourism authorities are also working to expand the niche sectors of business tourism, particularly in the major economic cities of Jeddah and Riyadh, and heritage tourism. As explained by an interviewee, there is still much scope for growth: "In Riyadh we are still lacking more than 5,000 rooms during events. For example, during the high season all hotels are 100% full as are all furnished apartments, so there is a problem in accommodation. We also have a lack of employees during seasons and events" (Al-Hokair-T1). This current inability to meet demand translates into future opportunity to create jobs for Saudi nationals.

### 7.2.1.2 Saudi cultural barriers

#### *7.2.1.2.1 Culture and awareness*

Most interviewees mentioned the significant part that culture plays in explaining the less than optimal participation level of Saudi workers in the tourism sector. In particular, many interviewees mentioned that Saudis "still have an inferior view towards professions in the tourist sector" (SCTH-D2). Deep embarrassment continues to be associated with working in the hospitality and service field: "The general culture has a problem with youth working in hotels as chefs, waiters or housekeeping, which they view as shameful and demeaning" (Al-Hokair-D1); "the most important difficulty which we face is the concept of embarrassment;

trainees see it is as shameful to clean rooms or work as a chef" (Al-Hokair-D2). However, there are some jobs within the tourism sector, specifically in managerial roles, which Saudis view as acceptable: "Most Saudis prefer to work in management positions of reception, customer service, reservation, or supervisor of waiters" (Al-Hokair-D3).

Family pressure is also significant in the choice of jobs for young Saudis. The culture of shame around employment in the hospitality sector creates a strong barrier to such employment: "Saudis like to work in the governmental sector; I think their families push them to work there. Some of my friends who used to work with me left their jobs because their parents refused to accept them working in hotels" (Mövenpick-G1). Marriage is traditionally considered key turning point in adult life that leads to prestige, recognition, and social approval, and the goal of Saudi youth is to find a job that will both make their parents proud and help them achieve social and economic independence. Several interviewees mentioned that a career in hospitality is not conducive to achieving this goal: "At the onset of taking on a job, Saudis' next step is to think about marriage, which requires a good salary. So, parents urge youths to get jobs so they can get married. A job in the tourism industry means they must be patient for about two years until they are financially ready for marriage. This is a problem" (Al-Hokair-D1); "People are not convinced that working in hospitality is a respectable job. And if you go to your mum and dad, they say you are going to work in a hotel they will not consider this a success" (Mövenpick-D1); "In the view of society and families, a career in hospitality isn't suitable" (Mövenpick-G1).

#### *7.2.1.2.2 Work ethic and motivation*

Saudi employees' view of hospitality and service as disreputable manifests as a lack of desire and motivation to perform well in these jobs, thus having an impact on work ethic within the sector: "Some workers do not like to perform; they are not punctual; they do not follow or forget their study or practice due to lack of desire and negligence in acquired skills; they do not have self-learning due to laziness" (Al-Hokair-T2); "The lack of interest of Saudi employees translates into a lack of commitment to their work" (Mövenpick-T1). As a result, Saudi workers tend to take on jobs in the sector on a temporary basis, while they search for permanent work in more "respectable" industries, such as the military and the public sector: "Another weakness point is continuity because Saudis take this field as a temporary field… but to succeed in this field it can't happen without continuity" (Mövenpick-D3). Due to this negative public perception, the industry is less likely to attract workers with strong career aspirations and a strong work ethic. Indeed, the path towards a fulfilling career in the hospitality sector

through the vocational route, i.e. with a non-managerial degree, generally entails climbing the corporate ladder from the lowest rungs. This requires patience and time before one can reach a substantive position with the necessary confidence and skills.

Moreover, aside from the shame associated with working in such jobs, incentive is affected by lower salaries, longer working hours, and less secure jobs, as compared to the public sector: "The skills are already here but the difficulty is that Saudi youth see long working hours and low salaries so these jobs will always be temporary for youth until he gets a better job" (SCTH-T1).

#### *7.2.1.2.3 Gender segregation*

Several interviewees mentioned the impact of gender segregation on the tourism labour market. Most jobs in tourism and hospitality require employees to communicate with customers of any gender, so gender mixing is common; however, many women feel uncomfortable working in a mixed gender environment: "Saudi women don't want to work in a gender-mixed place" (SCTH-T1). Thus, there is a shortage of female employees in the sector. Moreover, it was mentioned that women are not even provided with the choice to study hospitality in university: "For girls, this department [hospitality] isn't available in university" (Mövenpick-D2). Consequently, Al-Hokair Higher Institute for Training plans to open a women-only training centre: "We will open an institution for girls because we don't have enough female youth and they don't want to apply. We have some in the institution and we employ them but it isn't enough – for every 50 men, we only have two women and all hotels want girls to work as operators" (Al-Hokair-D1).

Those women who do not mind working in a gender-mixed environment face the further challenge of being seen as inferior to, and less qualified than, men. They are often judged for being progressive and unconventional: "For women, there are challenges because it is a gender-mixed place. People think that she is an insurgent and they are not convinced that she is qualified and they try to make her neglected" (Mövenpick-T1). Men also struggle with gender-mixed environments as they are unaccustomed to communicating with the opposite sex: "Students do not communicate well with guests of a different gender. So, students must learn basics to overcome problems at work" (Al-Hokair-T2).

#### 7.2.1.3 Other influences on Saudi participation in the tourism sector

Aside from an underdeveloped tourism sector, analysis of interviewee responses identified three other themes that explain the perceived moderate or weak participation of Saudi workers in tourism: public versus private sector, expatriate employment, and financial and other incentives.

##### *7.2.1.3.1 Public versus private sector*

About a fifth of respondents alluded to the deep-rooted preference of Saudi nationals to work in the public sector: "Most young people aspire to governmental career opportunities due to better security and stability" (SCTH-D2). On the other hand, most jobs in the tourism sector have temporary contracts: "many young people lost hope in the tourist sector as their job opportunity is temporary" (SCTH-D2).

##### *7.2.1.3.2 Expatriate employment*

The lack of indigenous employees in the sector is further compounded by the tourism labour market's preference for hiring expatriates over local citizens. The high concentration of expats has deterred Saudis from entering the field: "A big problem is that the tourism industry has depended on foreigners for a long time which has had a bad effect on Saudis considering entering this field" (Al-Hokair-D2). Saudis are viewed as having a poor work ethic and commitment to their jobs, and are known to demonstrate poor professional habits, such as absenteeism. Expats, however, are offered lower wages and work harder, according to some respondents: "Saudis do not accept long working hours unlike expatriates, who are even prepared to work during vacation and weekends" (SCTH-D1); "Expatriates can accept a salary of SAR1,200 or SAR1,300 but Saudis' minimum salary is SAR3,000" (SCTH-D1). Moreover, expatriates have skills better suited to the labour market: "Saudi worker skills cannot compare to the skills of foreigner youth" (Al-Hokair-T2).

This penchant for hiring foreigners is more pronounced when managers themselves are foreigners: "There are very few Saudi managers since foreign managers don't give Saudis the chance to train and get the necessary skills to become managers. There is fierce competition between foreigners and Saudis" (Mövenpick-G1). Another interviewee commented: "the problem is that employers don't trust that Saudis can achieve a positive target in the institution" (SCTH-G2).

The rate of expatriate employment is especially high in the tourism industry compared to other industries in Saudi Arabia because Saudisation is not highly enforced: "The government does not give high concentration on lower-level jobs in Saudisation" (SCTH-D1). Consequently, companies can get away with hiring foreigners over Saudis, leading to high competition between locals and expats. An interviewee explained that Saudisation in hotels is mainly evident at the front desk, security, finance, and sales jobs, while workers in the kitchen and back of house are largely expats (Mövenpick-D1).

#### *7.2.1.3.3 Financial and other incentives*

since tourism and hospitality is a relatively new industry in the KSA, most Saudis are quite ignorant about the prospect of a career in tourism: "Today people don't feel that you can have a career in hotel" (Mövenpick-D1); rather, they see it as a transient means to get paid while they search for more meaningful work. Those that are aware of the possibility of a career in tourism are put off by the time required to climb the corporate ladder – they simply want a head-start to the top and are unwilling to put in the required hours of menial work at low pay: "Saudi youth must be patient; they want a quick rise to the top" (Al-Hokair-D1); "Few of them are ready to develop themselves" (Al-Hokair-T2). Saudis generally prefer to work in tourist agencies rather than hotels since office jobs are considered more reputable: "There are more Saudis working in tourism agencies than in hotels because of the concept of embarrassment. Saudi employees believe it is respectable to work in an office" (Al-Hokair-D2).

The characteristics of the jobs themselves disincentivise Saudis, because the work hours are long, jobs are insecure, tasks are menial, and salaries are low: "In some hotels, salaries are low and work hours are longer; their work is hard. Such work is not preferred by Saudis. For example, receptionist work is heavy and hard as they stand for about 8 to 9 hours and only get SR4,000 or SR5,000 a month" (Al-Hokair-D3).

### 7.2.2 Skill profiles of indigenous Saudis in the tourism sector

This section focuses on the current skills profiles and the availability of skills within the indigenous Saudi population, as well as the labour market needs in the tourism sector. It discusses the current need for skills, the skills gap, and trends in the development of the

tourism sector. It includes two main themes identified through analysis: understanding the labour market and need for skills; and wider education system and employment pathways.

#### 7.2.2.1 Understanding the labour market and need for skills

Over 60% of interviewees mentioned that there is a lack of workers within the Saudi labour force who have skills to meet the demands of the tourism market, resulting in difficulties in finding qualified Saudis to fill positions: "Saudi Arabia has 70 hotels. To adhere to Saudisation, 40% of employees must be native; but it is difficult to fill these places as most Saudis aren't convinced about the hospitality and tourism field, so there is an insufficient number of workers to cover labour market requirements" (Mövenpick-D2).

##### *7.2.2.1.1 Skills of current workforce and graduates*

It is evident from the interviews that the lack of command of the English language is a major area of weakness amongst Saudi nationals, with 58% of interviewees citing this as a serious hindrance to the ability of workers to perform their job: "The most difficult problem in the tourism field is the lack of English language; we should teach our children foreign language (English) from primary age" (SCTH-D1); "English is the most important language for Saudis and, if they have other foreign languages, it will be better as we consider language is the biggest problem we face. Trainers and teachers of English and ICT in private and governmental schools are weak" (Mövenpick-D2).

In contrast to the 63% of interviewees who proclaimed that Saudi workers lack the necessary skills to work in tourism, eight respondents (33%) stated that they are well matched to the labour market. However, six of eight respondents were referring to the skill level of graduates trained by Al-Hokair Group. They explained that the training at Al-Hokair is predominantly practical, which enables trainees to acquire the exact skills needed on the job: "The teaching in other institutions is mainly theoretical but at Al-Hokair Institute everything is practical" (Al-Hokair-D3). Furthermore, English language training at the Institute is highly customised to specific roles: "Our English training is specific to job requirements, for example we teach English for receptionists, English for housekeeping, etc." (Al-Hokair-D1). The remaining two interviewees who claimed worker skills matched the demands of the labour market were alluding to the skill level of graduates from the training programme provided by SCTH. As

explained by a director from SCTH, training is provided under the supervision of SCTH, which makes sure the necessary skills are included in the curriculum; for example, the "trainee placement test is in English" (SCTH-D4). Thus, the SCTH programme automatically screens out candidates who have a poor command of English, since this is one of the most valued skills in the industry.

#### 7.2.2.2 Wider education system and employment pathways

***7.2.2.2.1 Skills required by employers***

The interviews show that the Saudi workforce is unable to meet the skill requirements that employers demand: "the quality of the tourism qualification is still less than what we need in the market" (SCTH-D3). Furthermore, they indicate that there are not enough Saudi workers willing to work in the tourism field: "The requirements of the labour market are more than the offers" (SCTH-D3). There is, therefore, imbalance between the supply and demand for skilled labour. Consequently, to fill the void in supply, employers rely on expatriate workers, who are generally more highly skilled, have a better work ethic, and are willing to work for lower wages.

Other vital skills found lacking among Saudi workers are marketing and communication skills: "Communication skills are important in our career, but young Saudis have poor skills" (AL-Hokair-L1); "Saudi workers are weak at marketing products" (SCTH-G1). Lack of knowledge about the history and culture of the country was also cited as a limitation among Saudi workers: "We have lack of knowledge about Saudi history, dates, monuments and heritage, as our cultural heritage is not included in the curriculum of public schools" (Mövenpick-L1).

The interviews reveal that the mismatch in skills is in part due to the poor level of hospitality education and training: "Sure, there is a gap. The issue here is not tied to incompetence of Saudis, but rather the poor level of education" (SCTH-D1).

### 7.2.3 The TVET system

This section focuses on the current TVET system and the methods used to provide vocational skills development and training. It considers the impact of current systems, institutions and initiatives, and it explores their strengths, weaknesses, and best practices. It includes two

main themes that were identified through analysis: TVET provision and quality; and cooperation between TVET institutions and organisations.

#### 7.2.3.1 TVET provision and quality

##### *7.2.3.1.1 Impact of the existing system*

Most responses to the question regarding the influence of the TVET system on the skills of indigenous Saudi workers in the tourism sector addressed specific programmes and initiatives, rather than considering the effect of the system as a whole. Essentially, most respondents focused solely on the impact of the training provided by their respective corporations. It is, therefore, likely that response bias exists. Nevertheless, they have not been excluded as they provide insight into the structure and type of programmes that the tourism sector requires from TVET institutes.

Over half (14 out of 24) of the interviewees stated that the training programmes and institutes familiar to them have been successful in providing trainees with the necessary skills to work in tourism. Several interviewees from SCTH spoke about the programme offered jointly by the commission and the TVTC: "There is a partnership between both of us [SCTH and TVTC] called the National System for Joint Training. It is a production of TVTC, the Human Resources Fund, and the Chambers of Commerce" (SCTH-D3). Training takes place at TVTC-licensed institutes. The current programme concentrates on travel and tourism; hotel training programmes have yet to be launched. There are currently around 1,000 male and female trainees enrolled in the programme. The success rate is relatively high, with 60-75% of graduates working in travel and tourism fields, such as tour companies, travel agencies, and tourism bureaus.

Other interviewees from SCTH spoke about the impact of training programmes offered by Colleges of Excellence: "The TVET outputs from Colleges of Excellence vary depending on the faculty. For example, in Medina their outcomes are good; in Mecca their outcomes are not on the required level" (SCTH-D2). Another director discussed the Ministry of Labour's plans to open more Colleges of Excellence that focus on hospitality training (SCTH-D2).

Most interviewees from Al-Hokair Group described the success of the training programme offered by the group: "The training at Al-Hokair Higher Institute for Training is perfect and the impact is positive. It teaches me how to face any situation when interacting with customers

since they teach us according to real-life experiences. All teachers have experience working in hotels and are highly qualified" (Al-Hokair-L1). The programme lasts two years. During the first year, students learn core subjects including English, mathematics, Arabic, and religion, while the second year is dedicated to teaching skills required for work in specific hospitality areas, such as reception, kitchen, room service, housekeeping, etc. In the final quarter, students get to choose a specific area of focus. The programme therefore exposes trainees to all departments and areas of expertise within the hospitality business.

An interviewee from Mövenpick (Mövenpick-D3) explained that many international hotel brands, such as Mövenpick and Intercontinental, have monthly in-house training to ensure company benchmarks are maintained, which have been influential in continuing the high-quality standards of staff expected at such renowned international brands.

A few interviewees remarked that, although TVET has proven to be effective at providing Saudi nationals with the necessary skills to work in the tourism sector, the impact is not pervasive enough since only a handful of programmes focus on hospitality; hence, there needs to be further development: "I think there is improvement in the influence of TVET on Saudi worker skills but its effect isn't felt everywhere" (Mövenpick-T1).

The issue of the pervasive culture of shame regarding vocational jobs was again raised by several interviewees in response to the question regarding TVET impact. Respondents claimed that, no matter how good the quality of training at TVET centres, and no matter how highly skilled graduates may be, the core problem lies in the reluctance of Saudi nationals to work in blue-collar jobs, which are viewed as dishonourable.

#### *7.2.3.1.2 Geographical differences*

As discussed in 7.2.1.2, some areas of Saudi Arabia are more familiar with the notion of tourism as they have experienced religious tourists coming to their cities for years: "The difference between Najd and the western area [Mecca and Medina] is Hajj and Umrah [the religious pilgrimage] which make people have more awareness and know how to deal with tourists from other cultures for a long time even before hotels, but in Najd they don't have it" (SCTH-D2).

#### *7.2.3.1.3 TVET system weaknesses and limitations*

The respondents identified three main areas where training curricula are failing to produce skilled graduates. Firstly, interviewees claimed that, currently, "most technical faculties don't provide hotel and tourism specialisations" (Al-Hokair-D1). Those that do, on the other hand, offer specialisations that "are not compatible to the tourism sector" (SCTH-D2) since they do not provide a diverse enough curriculum with a range of specialisations related to specific jobs, such as hotel management, event organisation, receptionist, guest relations, etc. Rather, they provide an overarching specialisation that teaches only broad skills, which means graduates lack skills tailored to particular roles.

Secondly, training centres are not providing students with the necessary soft and behavioural skills to work in the service sector: "TVET courses don't teach how to treat guests and they lack training in communication and language so most Saudis only speak Arabic. This needs to be improved" (Mövenpick-T2). Indeed, the importance of teaching English was mentioned by 42% of interviewees, particularly in the tourism sector where one needs to deal with foreigners: "we lack English training in this sector; English is still a barrier for employing Saudis in this sector; we find that around 90% of graduates have a problem in English" (SCTH-D3).

Finally, the interviewees remarked on the need to include more practical training in TVET curricula. Courses in tourism and hospitality tend to focus too heavily on theoretical training, whereas "the tourism sector has a lot of skills which can only be acquired via practising in real-world situations" (Mövenpick-L1). The significance of practical training in the hospitality field was reiterated by several respondents: "The hotel sector depends on on-the-job training, the service sector can't depend on books" (SCTH-D3); "in university, most training is theoretical, whereas tourism and hostelry depends on practice, not on theoretical training only" (Mövenpick-L1); "the students and the studies are not matching our needs; in my opinion courses rely too much on theoretical rather than practical training" (Mövenpick-D1).

Shortcomings in the system were described by 13% of respondents. These include the failure to provide graduates with the full skillset required to work in the hospitality sector, and the low number of graduates produced from institutions: "There is a deficiency in quantity of Saudi youth qualified to meet the needs of the tourism labour market" (SCTH-D3).

Finally, one interviewee considered a pertinent point: the government's Vision 2030 plan, which is designed to overhaul the education and training system in order to equip the KSA with a resourceful, educated, and skilled workforce, was only put in place in 2016. As a result, many policies and initiatives outlined in Chapter 4 are still in their infancy, while others have yet to be adopted. Furthermore, there lacks a proper monitoring and control system to gather data on the results of these policies, if any: "The problem is in the implementation. We have excellent plans, but they don't implement them fully. We need to have better mechanisms in place to control and monitor the effectiveness of the training institutes in skilling graduates according to the needs of the Saudi labour market" (Al-Hokair-D2).

#### 7.2.3.2 Cooperation between TVET institutions and organisations

##### *7.2.3.2.1 Best practice for collaboration and initiatives*

The interviews revealed that the main strength of the current TVET system in developing a skilled workforce for the tourism industry lies in its various cooperative initiatives. Respondents discussed training programmes certified by TVTC and HRDF that have proven successful over the years. One such programme offered through Takamol Holding, in conjunction with SCTH, is Training Ending with Employment, as explained by a director from SCTH: "We train about 8,000 students in the travelling sector under the supervision of our commission. This training programme is called Training Ending with Employment. Students get a diploma after six months to one year. Now, we have about 40 centres all over the kingdom" (SCTH-D4). Although many graduates from this programme are offered contracts with tourist companies, the programme "suffers from job leakage whereby students who take courses and benefit from training and incentives (of about SR300–400 monthly) tend to leave these companies and go to more prestigious service sectors like banks, airline companies or governmental companies" (SCTH-D4). The reason graduates choose to leave the tourism sector comes back to society's view that hospitality jobs are second rate and inferior.

Another programme mentioned by respondents and which has shown progress over the years is the Your Job is Your Scholarship programme, which encourages people to immediately find work in a position connected to their course of study: "The Archaeology and Tourism entity developed an agreement with universities to open the tourism faculties of excellence for training, which offers scholarships to students and raises awareness on the importance of

working in tourism in KSA. This programme (Your Job is Your Scholarship) has 500 students enrolled" (SCTH-T1).

Certified Meeting Professional (CMP) and the Meeting Professional International (MPI) training conferences were also mentioned as positive TVET initiatives: "Both CPM and MPI consist of certified intensive two-week training courses on hospitality and tourism. These certifications provide trainees with the knowledge to become a professional in the industry" (SCTH-D5).
Over the years, Al-Hokair Higher Institute of Training has developed a reputation in the hospitality industry for producing skilled graduates and has thus established numerous partnerships with local and international players in the sector. These include: Mövenpick Hotels; King Saud University – one of the top universities in the KSA; William Angliss Institute – Australia's largest specialist centre for hospitality, tourism and culinary arts training and education; and HTMI – a leading hospitality and tourism management institute in Switzerland. It also has key relationships with relevant public authorities such as TVTC, HRDF, the Ministry of Labour, and the SCTH. Many of these partnerships were mentioned by the interviewees when discussing the impact of training on the tourism sector: "King Saud university has an agreement with Al-Hokair to provide practical training in hotels and tourism. University students come to train at the Institute during the last term where they learn how to apply the theory taught in the classroom" (Al-Hokair-D3). Considering that the university only provides theoretical training, this partnership is key to ensuring students have the necessary skills to enter the workforce, as training at Al-Hokair Higher Institute of Training is 80% practical. Another interviewee alluded to the relationships between Al-Hokair Higher Institute for Training and William Angliss Institute: "The agreement with William Angliss and the Saudi Commission for Tourism and Antiquities is a quantum leap in the curriculum in the recent period" (Al-Hokair-T1), as the partnership has allowed for the development of a curriculum that specifically caters to the needs of the tourism and antiquities sector and which had previously been non-existent.

Moreover, an SCTH director spoke about the significant increase in the number of tourism faculties, departments, and special institutes over the past decade: "In 2006 and 2007, no universities taught tourist specialisations. Today, we have almost 47 institutes" (SCTH-D1). He explained that this positive trend is a result of cooperation between TVTC, universities and private tourism companies to develop training programmes to meet market needs.

In general, the interviewees stated that the more cooperation between relevant governmental authorities, including those responsible for TVET, and private tourism companies, the faster the industry will develop and hence the greater the speed of change in the mentality of the Saudi population regarding jobs in the hospitality sector, i.e. as the industry develops the social environment will follow suit.

### 7.2.4 Stakeholders' responsibilities for development

This section considers the roles of various stakeholders in developing the TVET system. It discusses the roles of actors and institutions, and the collaborative relationships between them, which are required to implement changes and bring about improvements. Figure 7.6 summarises the five stakeholders and their roles in developing TVET.

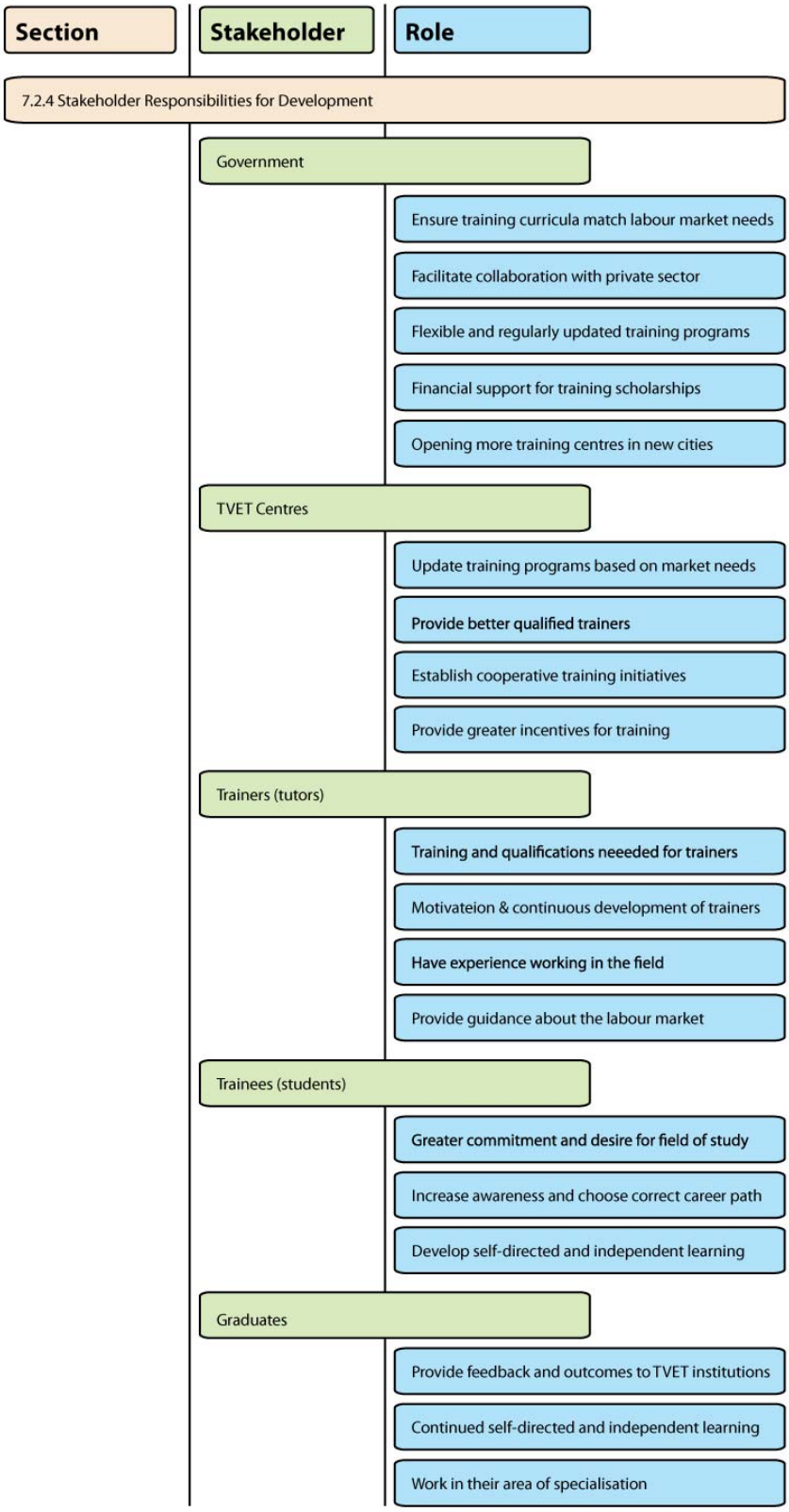



***Figure 7.6: Summary of stakeholders and their responsibilities for development***

The common role, as mentioned by the interviewees, for all stakeholders in improving TVET in the tourism sector is to increase awareness of the industry. In terms of governing bodies and

TVET authorities, interviewees stated that their role is to provide "support to the awareness campaigns launched by schools" (Al-Hokair-D1). Moreover, interviewees stated that both TVET and tourism governing bodies (i.e. TVTC, SCTH, etc.) are responsible for initiating dialogue and building interest in the tourism industry through conferences and exhibitions that discuss pertinent issues in the field. This will also help to position tourism as a more "legitimate" profession:

> The role of government agencies is to activate special forums in tourism. Now the travel and tourism industry have a forum once a year. If they make one every three months or every half a year and not only be in Riyadh but in several cities, the impact will be greater and society's view that tourism is not good will change. (Al-Hokair-T2)

Interviewees claimed that TVET centres are responsible for attracting students of tourism: "TVET centres must inspire students to enter hospitality training through activities that increase social awareness, such as participating in forums which will help foster intrigue and curiosity about the industry" (Al-Hokair-T2); "TVET centres must provide education programmes and information about tourism that attract trainees and illustrate the importance of the sector to the economy" (Mövenpick-D2).

With regards to trainers, respondents mentioned how they are the first real industry contact for students, and so are pivotal in demonstrating the professional nature of the field and in imparting a positive and engaging viewpoint: "Trainers must be professional and ensure students engage in the field" (Al-Hokair-T2).

According to the respondents, the role of trainees when it comes to awareness is to keep an open mind, "to listen and be more flexible" (Mövenpick-D1), to be willing to research the industry "and get information on the labour market" (Mövenpick-D2), and to "develop themselves by learning more about hotels, institutes and the career ladder" (Al-Hokair-L1).

Finally, the graduate's role in "increasing awareness on the importance of this field is to spread the positive side of this work based on personal experience. Graduates' successes will reflect on training institutions and demonstrate to Saudi youth that careers in tourism are ones to be proud of" (SCTH-T1).

In addition to increasing awareness, the interviewees identified other responsibilities of stakeholders in improving TVET in the Saudi tourism market. These are outlined below.

***Government***

The questionnaire responses show that a crucial role of government training authorities is to establish training curricula in the tourism and hospitality field that better suits market needs: "The government must ensure there is a connection between the Saudi curricula and the needs of the labour market" (SCTH-D3). To achieve this, the interviewees reiterated the importance of training authorities to cooperate with both private-sector corporations and governmental tourist authorities, such as the SCTH, to jointly develop curricula that address specific skills required for various job roles in hospitality and tourism: "There must be cooperation between the commission (SCTH) and the TVTC to revise training programmes according to market needs and development. Private institutes also have a strong role in developing programmes, since they know the market needs first-hand, while the government does not" (SCTH-D1). There was reference to the need for programmes to be "flexible" (SCTH-D1) and to be reviewed and revised annually, particularly since "this sector is new and is progressing rapidly so programmes must always be up to date" (SCTH-D5).

Interviewees discussed the government's role in providing financial support to the industry in the form of training scholarships: "Government involvement is to provide scholarship programmes, for example the Your job is Your Scholarship programme, which is organised by the authority of higher education, and sends students to learn abroad, either for a masters or PhD. Then they come to Saudi Arabia to work in hotels. It has been a highly positive step forward" (Mövenpick-D3).

Finally, the interviewees mentioned the need for a greater number of training centres catering specifically to the tourism and hospitality sector, such as Al-Hokair Institute, to be established across the country: "There must be an increase in the number of governmental institutes – not Hokair only – to train students in tourism" (Al-Hokair-G1); "[the government] must provide more institutes in the remaining cities. Al-Hokair Institute is available only in three areas: Riyadh, Jizan, and Abha. Other cities do not have institutes" (Al-Hokair-L1)

***TVET centres***

Similar to the responses regarding the role of government training authorities, the interviewees claimed the role of training centres is to continually improve and update programmes based on market requirements: "They must search for the best curricula continually" (SCTH-D4); "TVET centres must improve the education level to match or surpass labour market needs" (SCTH-D3). Recommendations on how such improvements could be achieved include provision of better-qualified trainers, partnership and cooperative initiatives, monitoring and control, and training incentives (as outlined in Section 7.2.5).

***Trainers***

With respect to the role of trainers, the interviewees acknowledged that they are pivotal in the transformation of students' skills, and that "the quality of the university is based on the quality of its trainers" (Mövenpick-D1). Therefore, the interviewees claimed that it is not only imperative for trainers to be highly qualified, but it is also essential that they have experience working in their field of study: "It isn't enough to be academic, it is the difference between being an academic and being knowledgeable about the industry" (SCTH-D5); "Trainers must have experience of work in the same area in which he is a trainer" (Mövenpick-G1). This entails continuous learning and development on the part of trainers to ensure they keep pace with new industry advances: "Trainers must take additional programmes to ensure their knowledge is current and relevant" (SCTH-D5).

Interviewees explain that, as well as being highly qualified and experienced, trainers must use pedagogical techniques that motivate and inspire students, ensuring that students are not simply learning by rote but are comprehending the material and can apply it. Furthermore, it was mentioned that teachers must understand that they have a duty of care towards students and hence should make themselves available and supportive to students who need assistance: "Trainers must be interesting and creative when they deliver information to students. I think that training is the part which can make students like the job" (Mövenpick-G1); "Teaching is a process of explaining the lecture. It is a development process and is a supportive role" (Al-Hokair-D1).

Some interviewees discussed the role of trainers as influencers and advisers to students, able to guide them about the world of work in the tourism industry based on their own personal experience. In this role, interviewees mentioned the importance of highlighted the significance of hospitality work: "Trainers must encourage students about this work in tourism.

They must influence and communicate with students to increase students' motivation and to show them the importance of this work" (SCTH-T1).

***Trainees***

As discussed by the interviewees, one of the key roles for trainees is to show commitment to their field of study and a desire to learn from their trainers: "Trainees must not be careless in learning. They must not waste time in training. They must get experience from their trainers. They must show diligence, perseverance and commitment" (Al-Hokair-G1).

Many interviewees also mentioned that this commitment and desire to learn should extend beyond the classroom into the workplace – that trainees need to show curiosity about the industry and a willingness to put their field of study into practice. Respondents stated that continuous self-development is necessary to succeed in the tourism industry: "Trainees must practice self-development. They should not rely only on information taught at university" (SCTH-D2).

Additionally, some respondents claimed that to be fully prepared for employment, trainees need to research the sector and understand what the market expects from them: "Trainees must acquire background knowledge of the tourist sector and the jobs they apply for" (SCTH-D4); "Trainees must develop themselves to learn more about hotels, institutes and the career ladder" (Al-Hokair-L2). These responses demonstrate that it is commonplace for graduates to find themselves out of their depth and uninformed about what is required and expected of them in the workplace. As a result, many become demotivated and neglect their work (as discussed above). The interviewees believed that many of these failures stem from poor efforts at making students work-ready. They insist this effort must derive from the student themselves; hence, the importance of having a sense of dignity and fulfilment from the job: "Trainees must like what they decide to do and commit to it and be persuaded that they have an important job and that it is very useful for their country" (Mövenpick-D3).

***Graduates***

According to the interviews, one key role of TVET graduates in improving the prevailing situation of labour force skills mismatch is to simply work in the field in which they specialised. As explained by one interviewee: "Many trainees do not work in their field due to peer and family pressure, so they look for other opportunities or relaxation" (Al-Hokair-L1). An interviewee commented: "Graduates' role is to participate in the economy in order to support the development of their particular sector. So, their role is to find work in the tourism industry

where they are needed rather than requiring employers to look outside and hire people from abroad" (Mövenpick-D1).

It was also mentioned that graduates "must provide feedback to institutions, trainees and trainers for use in the improvement and development of training, so that training programmes are successful in equipping graduates with skills demanded by the profession" (Al-Hokair-T2).

The interviewees demonstrated a belief that, if graduates are willing to work hard and continually learn and develop to keep pace with the industry, they will help to lift the industry and change society's perception, while encouraging other youth to enter the field: "I think they are our message to society. Graduates must improve themselves and make a good image of [their] career and encourage other Saudi youth to enter this career" (Al-Hokair-T1).

### 7.2.5 Suggestions and recommendations for the future

This section provides suggestions and recommendations for the future development and improvement of the TVET system, and what is required to meet the skills and employment needs of the tourism sector. It considers the role of various organisations, the development of training courses and content, the need for on-the-job and practical training, the need for training incentives, and wider issues relating to education and culture.

This section is organised according to the six themes identified in the earlier sections of this chapter. A summary of these themes and the sub-headings used is given in Figure 7.7.

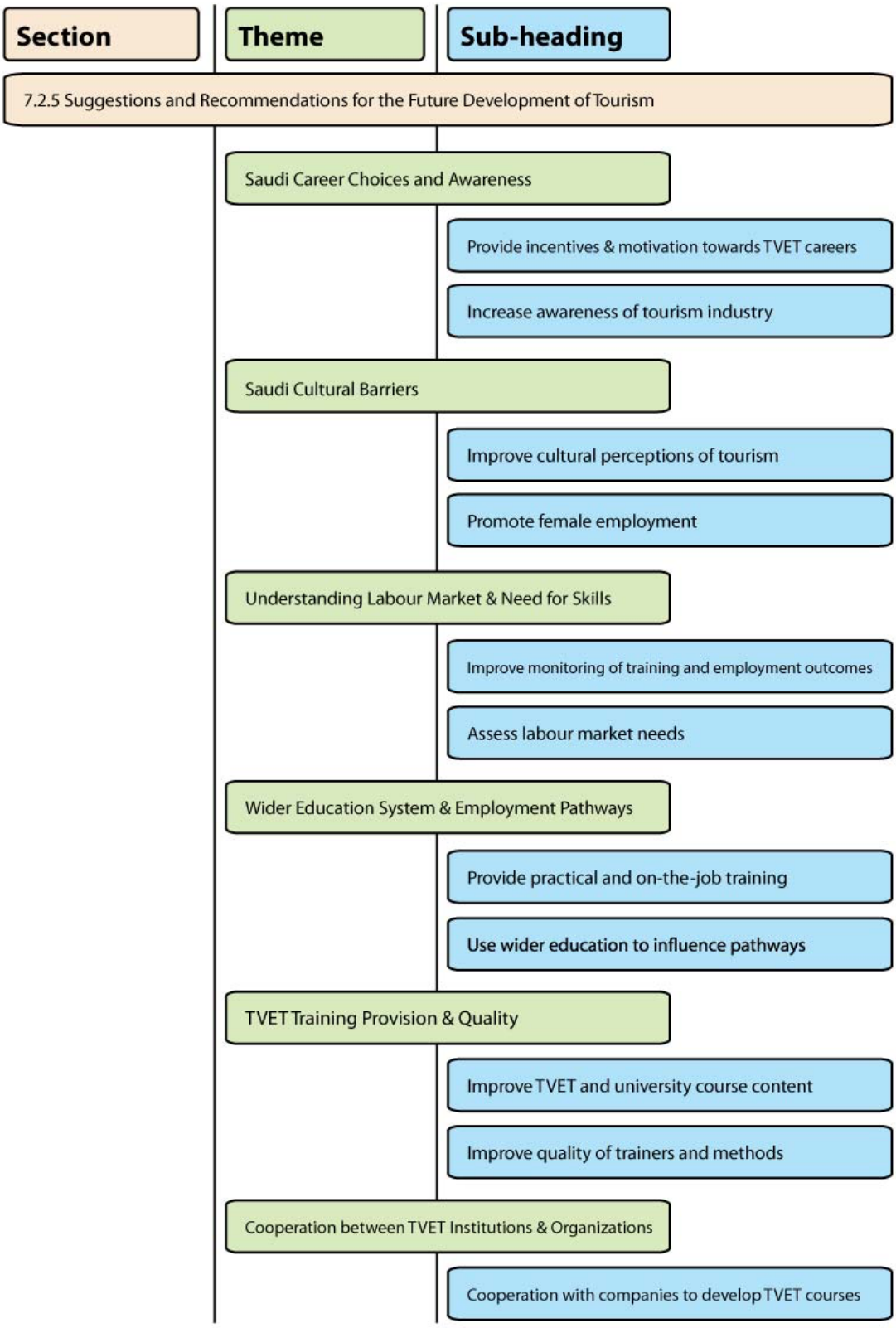



***Figure 7.7: Summary of suggestions and recommendations for the future***

The interviewees claimed that TVET's role is to bridge the human capital mismatch between supply and demand, in terms of both quality and quantity, of indigenous labour. This would

mean a reduction in the youth unemployment rate and in the dependence on foreign labour: "TVET has a great role in reducing the unemployment rate since most workers in tourism are expatriates, by ensuring natives are highly qualified to work and providing graduates with guaranteed employment opportunities" (Al-Hokair-G1). The interviewees provided the following suggestions and recommendations to improve and enhance the impact of the current system in order to achieve this goal.

#### 7.2.5.1 Saudi career choices and awareness

##### *7.2.5.1.1 Provide incentives and motivation towards TVET careers*

A common topic mentioned by interviewees is the importance of TVET institutes in providing performance-based incentives to motivate youth to train, and subsequently work, in the tourism field. Examples of incentives include the provision of scholarships and guaranteed post-training employment: "There must be an agreement among governmental training institutes to open the field of scholarship for vocational trainees" (Al-Hokair-G1); "The Ministry of Education has developed the Your Job is Your Scholarship programme which is very successful" (Mövenpick-T1); "I encourage Training Ending in Employment so as not to waste skills" (SCTH-G1).

However, one interviewee spoke about the issue of students demonstrating a carefree, nonchalant attitude towards finding work in tourism, caused by a combination of financial benefits provided by the government during training and a lack of desire to work in the industry due to the shame culture associated with it. The suggestion provided to tackle this issue is to require students who have not found work in the industry to pay back the salary they received while training:

> Trainees must attend classes and seek knowledge to benefit themselves, not to attend training only to receive a salary. The employment rate is 40% due to the lack of desire to find job opportunities since they are getting a salary regardless whether they have a job. We should have new contracts that stipulate that trainees must pay what they have received during training period if they don't find work in the field. (Al-Hokair-L1)

In essence, this would give students a financial incentive to find work in tourism and hospitality.

#### *7.2.5.1.2 Increase awareness of tourism industry*

The interviews provided many recommendations on awareness programmes using the power of the media to influence people and instil pride for working in a field, such as tourism, that promotes the KSA. Suggestions included the use of social media to attract youth to work in the sector through campaigns that demonstrate the potential for career and job satisfaction in the industry. Such campaigns could depict an aspirational image of tourism and associate the industry with national pride, as well as portraying specific jobs, such as cooks, housekeepers and receptionists, in a positive light: "We must have a national campaign called 'know your country' to make people know about their country and the tourist places in it" (Al-Hokair-D2); "using social media is a must in order to entice young Saudi men and women to work in the tourism sector" (SCTH-D1);

a positive view must be spread by mass media and social media describing successful stories of Saudi youth in the tourism field. There must be a complete change in society's point of view of cooks and waiters. Our Arabian culture gives us the chance to serve people and be hospitable, so we must use that to encourage youths to enter the field. (Al-Hokair-T2)

Such awareness campaigns in other industries have proven successful: "Awareness campaigns in the kingdom are necessary. For example, the job of cashier was rejected by Saudi society but now it is acceptable as a result of awareness programmes" (SCTH-D2); five years ago, Saudis refused that their daughters work in the field of nursing because it is a mixed-gender environment. They believed if she worked there, no one would marry her. But nowadays, parents themselves beg HR mangers to employ their daughters as nurses. Their perspective has changed due to King Abdullah's promotional scholarships that encouraged women to join the nursing field and allowed Saudis to become more open-minded. Rules and conditions change society's culture. (Mövenpick-D2).

Indeed, a few respondents acknowledged how promotional initiatives have begun to shift negative bias against the industry: "Today there is true dedication from the Ministry of Tourism to develop tourism because when the young generation see there is an opportunity to have a successful career in tourism, I think they will by themselves decide to go into this field" (Mövenpick-D1); "In the last four years, Saudi youth has become more open-minded about the tourism sector as a result of advertising in schools and universities, and conferences that promote the industry" (SCTH-T1).

I think awareness is already occurring. A few years ago, Saudis refused to serve people – for them it was degrading. But now you find Saudis in housekeeping, in the kitchen and they are doing well, due to the opening of new hotels and the exposure of new companies in the market, Saudis are more and more aware of what's going on. (Mövenpick-D1)

Despite this perceptible positive shift in attitude, there is general agreement that progress is slow and widespread acceptance will take time.

#### 7.2.5.2 Saudi cultural barriers

##### *7.2.5.2.1. Improve cultural perceptions of tourism*

The interviewees acknowledged that Saudi society has "a wrong image of the tourism and hospitality sector" (Mövenpick-T1). One claimed that, "if we understand its importance and how it could be useful for us economically and culturally" (Mövenpick-T1), it will attract Saudi youth to the sector. As another interviewee put it: "There is little appreciation of national monuments and heritage, because awareness is weak and there isn't clarification about the importance of tourism" (Mövenpick-L1).

Many interviewees, therefore, discussed the role of TVET in educating the population to inform them about the significance of the tourism sector in bringing economic, political and reputational gains to the country: "TVTC, The Human Resources Fund, the General Authority for Tourism and Antiquities, the Ministry of Education, the Chambers of Commerce and the Faculty of Hospitality and Tourism, all these entities are responsible for generating awareness among youth regarding the importance of working in hotels and tourism and its importance to the country itself" (Al-Hokair-D1). Spreading such awareness is instrumental in changing the status quo in the social fabric towards acceptance of tourism as a reputable career. This will in turn be reflected in an increased desire of Saudis to work in tourism, as well as an improvement in the attitude and work ethic of Saudi employees: "changing the mindset of shame would be the biggest achievement that we could accomplish to improve Saudi participation" (Mövenpick-D1).

Saudis currently think of tourism as the third or fourth option. They give interest to banks and other prominent jobs. There must be announcements about future investment projects published by the tourism commission to demonstrate the great opportunity in the industry

and to show that we need a lot of specialised employees. There must be intensification in promoting tourism by visiting schools and universities and giving courses to educate the population. (Mövenpick-D3)

As the director from Mövenpick went on to explain: "For example, it is very easy to find employees in Jeddah or Mecca (where tourism is better understood), unlike in Riyadh due to the culture of embarrassment and lack of awareness about tourism in this area" (Mövenpick-D3).

#### *7.2.5.2.2 Promote female employment*

Another significant topic raised by interviewees concerns how the current social and legislative environment significantly hinders the ability of women to work, particularly in the tourism sector. As explained by an interviewee from SCTH:

> The potential for women to be successful in this industry is limited in KSA because the role for women in the tourism sector is not clear. Women don't know where they can work in the tourism institution, because of the rules and requirements, which the country imposes. For example, the housekeeping department has a lot of jobs, but they are only for men, whereas all over the world housekeeping departments depend on women. Women are also not allowed to work in the front office and reception. This needs to change. (SCTH-G2)

Aside from the issue of mixed-gender environments, other barriers placed by the Saudi system on the ability of women to succeed at work include the prohibition of female drivers. Recommendations include requiring employers to fund transportation for women, or requiring employers with a certain percentage of female employees to arrange for a bus service. The lack of childcare and crèches in the sector was also mentioned as a deterrent to women's employment: "I think they can get a bus for women or increase their salary by 10% to allow women to organise suitable transportation to work. We also need a nursery for the tourism sector, which will make it easier for women to work in this sector" (Mövenpick-T1). There have been recent changes in the law, meaning that women are now allowed to drive in KSA. This is likely to lead to greater independence and less reliance on driving services, but at the time of the interviews this policy change had not been implemented.

#### 7.2.5.3 Understanding the labour market and need for skills

##### *7.2.5.3.1 Improve monitoring of training and employment outcomes*

Respondents spoke about the use of feedback from graduates as a necessary means to ascertain the quality and standard of TVET centres' programmes. They explained that monitoring graduates' progress during the first few crucial months on the job will enable TVET centres to determine whether they have been well equipped for the workplace, and hence provide key indications of areas of strength and weakness in the curricula. Institutes can then improve accordingly to ensure graduates are market-ready with skills that are directly aligned with industry needs: "It is important to follow up with graduates when they join the labour market so that institutes can know the difficulties they face so they can avoid them during training" (STCH-T1).

One interviewee spoke about facilitating the transfer of knowledge to and from trainees and centres through an online portal. Such website could become the point of contact for students and alumni to access resources throughout their careers: "we must connect employees and trainers through a website in which they can provide feedback. It can also be used to direct trainees; for example, if they don't know something at work or are missing information, this provides a portal where they can ask for it" (Mövenpick-L1). This portal could also be used to monitor graduates' progress and measure how successful institutions are at preparing graduates for employment.

##### *7.2.5.3.2 Assess labour market needs*

***Saudisation***

Several interviewees discussed the need to impose stricter Saudisation rules in the tourism sector. As discussed previously, Saudisation has not been stringently enforced in the tourism industry, unlike in other industries such as finance and manufacturing. Moreover, in order to meet Saudisation targets, Saudis are only considered for low-ranking positions, rather than for managerial roles. The consensus was that this needs to be addressed further: "There must be Saudisation in the job of hotel manager all over the kingdom" (SCTH-D4). These recommendations imply that it is not enough to simply require companies to have a certain percentage of native workforces, as dictated by Saudisation, but rather to take this policy one step further and stipulate that a certain percentage of high-level employees should be

indigenous. Potentially, companies that do not meet the criteria must be able to prove that they were unable to find sufficiently qualified indigenous employees during the hiring process (possibly limited to a specific timeframe for the hiring process).

Labour rights

With regards to legislation, the main concern of the respondents concerned labour rights, particularly in the hospitality sector, where working hours tend to be much longer than in other sectors. Many interviewees mentioned that working environments need to be improved and minimum wages in the industry need to be raised to match the intensity of hospitality jobs: "The work environment must be improved. Salaries and incentives must be raised" (SCTH-D4); "the minimum salary is SR3,500, but it isn't enough in the tourism sector. We must raise salaries according to the long work hours and high stress of the job" (SCTH-T1). Raising salaries would also help to attract more Saudi youth to work in the industry: "Due to low pay, my colleagues withdrew from the institute since they have found better job opportunities with higher pay" (Al-Hokair-L1). There was also a suggestion to give employees bonuses and to register employees during their training period for social insurance (SCTH-D2), which would help to align incentives and motivate employees to work.

Moreover, other interviewees mentioned the need for the sector to provide job security to its indigenous employees: "Some people say that this field has no future because it is a private sector, which has no job security. There must be guarantees of the rights of hard-working employees" (Al-Hokair-L2).

Finally, one interviewee spoke about the need to establish governmental policies that explicitly show support for the tourism industry, thereby demonstrating to Saudi youth (who strongly favour government jobs) that the government is behind the industry and is pushing for it to develop and prosper:

> The government must show support for the tourism industry; both moral and financial support. Financial support means increasing salaries or setting a higher minimum wage. Moral support means demonstrating to Saudi employees in the tourism industry that they are backed by the government or the SCTH because most of the Saudi community think that private sector companies in tourism are separate from the government. The Saudi community prefers government jobs due to job security. So, if

> we direct governmental support to the companies, it will be better as Saudis will feel more secure in accepting jobs in the industry. (Mövenpick-L1)

***Professional tourism licence***

In 2014, as a means of regulating the industry, the Saudi Arabian Tourism Authority issued a new legislative framework that requires anyone wishing to carry out business activities within the tourism industry, including travel agencies, tour guides, and accommodation providers, to be appropriately licensed by the Commission (Al Tamimi & Co, 2016). One interviewee recognised the importance of this licence and reiterated the need for the industry to embrace it as a positive step forward and to ensure that it is enforced: "The vocational/professional licence has an effect on the profession's psyche and on the sector. However, this card has not yet been enforced. To improve professionalism and standards in the industry, we must make sure that business is only conducted with companies that have the licence" (SCTH-G1).

***Career paths***

Several respondents mentioned the importance of providing graduates with a structured career projection plan upon entering work: "The problem is that in the tourism sector there isn't a clear career path, so many graduates don't understand what the career ladder is. It is thus required to have an accurate career path in the tourism sector" (SCTH-G2). The idea behind this suggestion is that a well-defined path would lead to fewer dropouts and a greater number of graduates seeking positions in their specialisation.

#### 7.2.5.4 Wider education system and employment pathways

***7.2.5.4.1 Provide practical and on-the-job training***

The respondents reported that training in tourism and hospitality needs to be more heavily weighted towards practical, in-the-field learning, rather than theoretical studies: "Practical training in this sector must be about 80% and theoretical only 20%" (Al-Hokair-D2). Increasing practical training will allow graduates to be better prepared to enter the world of work. One interviewee provided the example of the laborious job of standing at a reception desk for eight hours a day. He noted that if this were simulated during training, then the job would not come as a shock as trainees would know what to expect and would be able to determine whether it is right for them prior to signing a contract: "We need to make students accustomed to do that work through practice. When a student sits all his life without practising and suddenly he

stands in reception three or four hours in service or eight hours in a hotel it becomes very difficult" (Al-Hokair-T2).

Recommended best practices to be implemented more widely during training are stated in the following quotes: "I think the best practice is to learn on the job, i.e. on-the-job training" (Mövenpick-D1); "Best practices include field visits, on-the-job training and case studies. For example, role-playing with trainees, where someone acts as a difficult guest. Here, the student learns and deals with situations through role play" (Al-Hokair-T2).

#### *7.2.5.4.2. Use wider education to influence pathways*

As mentioned previously, it was widely cited that English language skills of Saudi workers are well below par. Thus, the interviewees suggested that a greater focus on English as a Foreign Language (EFL) across the entire education system must be applied. Although EFL has recently been made compulsory at primary and secondary school levels (in the case of private schools, English is taught from kindergarten, while, for state schools, it is introduced in fourth grade (Saudi Arabia Education, 2017), the effectiveness of this policy has been limited due to a combination of: restrictive teaching methods; the country's socio-political environment, which favours the prevalence of Arabic; students' lack of motivation to learn the language; and a lack of opportunities to practise the language in real-life situations (British Council, 2016). Since English is not immediately relevant to their needs, students usually do not pay serious attention to learning. They simply try to acquire the minimal competency needed to pass exams and assignments through rote learning. Awareness of the importance of English is, therefore, essential: "There is no focus on English at schools. We were studying without concentrating on it since we did not have any idea that we will need English in the future" (Al-Hokair-L1). Moreover, because higher education institutions have more autonomy in the design of their curricula, English is not always taught in tertiary education. The combination of these factors leads to a poor grasp of the English language in the KSA. In fact, the average level of English proficiency in Saudi Arabia remains one of the lowest in the MENA region and internationally (British Council, 2016). It is therefore vital that changes be made to Saudi Arabia's education policy on EFL: "There must be focus on teaching the English language" (SCTH-D2). Greater fluency in English would boost the indigenous human capital skills and should directly impact the participation rate of natives in the tourism industry, where proficiency in English is a fundamental skill.

In terms of other changes to the general school education, some interviewees spoke about the importance of introducing basic courses on tourism and hospitality in: "We must have a curriculum about tourism in national schools. We must urge schools to make tours to the tourism places in KSA, and to give the students knowledge of tourism resources" (SCTH-G2). Several interviewees even proposed the establishment of secondary schools that specifically teach hospitality: "I advise opening a hospitality secondary school" (Al-Hokair-D1); "I think that there must be schools for hospitality after preparatory years" (Al-Hokair-T2).

#### 7.2.5.5 TVET provision and quality

##### *7.2.5.5.1 Improve TVET and university course content*

In terms of improvements to TVET tourism curricula, many interviewees stated the importance of increasing the diversity of technical specialisations offered to provide workers with a more tailor-made and specific skillset to deal with certain professions in the industry: "For example, in the crafts and handicrafts sector, there are no courses that teach about the restoration of old buildings, so we must create courses to get this specialisation" (SCTH-G2). As mentioned previously, currently most training programmes cover a more general degree on the entire field of tourism and hospitality, whereas respondents claimed that it would be more beneficial to provide specialisations in the various branches of tourism and hospitality:

> There aren't enough diverse specialisations in tourism. Training programmes offer it as a single major without considering that it has a lot of branches. People who work in tourism offices require different skills from those who work in events management, travel agencies, hotels, museums, or tour operators, etc. Language requirements are also different: chefs don't need to be as proficient in English as do receptionists; and receptionists require different language skills to tour guides. So, if we have different specialisations, it will serve to provide more skilled and professional graduates that are well matched to the needs of the labour market. (SCTH-D5)

Moreover, it was suggested that "curricula must be updated regularly to cope with labour market developments" (STCH-D1).

The interviewees also outlined specific skills that should be taught across all curricula, namely soft skills such as behavioural, communication, and teamwork skills. According to the respondents, the teaching of these key skills is currently either non-existent or ineffective; thus, most graduates severely lack these skills: "In general, behavioural skills of Saudis are weak" (SCTH-D1); "Saudi communication skills are basic; they lack patience and teamwork" (SCTH-D5). In particular, it was emphasised that proficiency in foreign languages, especially English, is very poor: "Saudis must learn foreign languages to deal with foreigners in this field and develop their communication skills" (Mövenpick-L1). They also discussed the need to "provide courses on how to deal with tourists" (Al-Hokair-D3), such as "courses in etiquette and protocols" (SCTH-D5) to improve the behavioural skills of workers.

Other recommendations to improve curricula include self-learning and continuous development: "Self-learning must be practised. Continuous development should be part of school curricula" (SCTH-G1). Moreover, interviewees spoke about the role of TVET centres in guiding students and helping them determine the right career path in a bid to reduce dropout rates and heighten motivation and desire to learn. To achieve this, it was suggested carrying out career aptitude tests, or "preference tests", at the start of training: "The role of TVET centres is to interview students to find out their career preference. When students finish secondary school, they tend not to know which career they wish to pursue so they choose one based on peer and family pressures. But if we conduct a preference interview they will be able to direct students to the suitable place" (Al-Hokair-D1); "It is necessary to prepare students with an entrance test. If they are engaged in their subject, students will demonstrate higher professionalism" (Al-Hokair-T2).

Finally, a couple of interviewees remarked on the inadequate number of training facilities available throughout the country to achieve maximum impact of TVET on the Saudi labour-force: "We must increase the number of [training] institutes" (Al-Hokair-D1); "There must be spread and expansion of institutes... A lot of them must be opened" (Al-Hokair-L1).

#### *7.2.5.5.2 Improving quality of trainers and methods*

Some interviewees recommended implementing policies aimed at attracting and retaining effective, well-qualified teachers, which currently are in low supply: "The government training authorities must attract qualified teachers and trainers and invest in qualifying specialist trainers" (SCTH-D2). Another SCTH director explained: "We need specialist trainers. For

example, in the college of tourism and archaeology, professors specialising in archaeology are forced to teach other tourism-related fields due to the lack of qualified trainers who specialise in those fields" (SCTH-D3).

One interviewee spoke about the importance of trainers having expertise specific to the Saudi tourism sector: "Unfortunately, many trainers are expatriates, so they reflect their countries' tourism, but the tourism here is different due to our strict adherence to tradition" (SCTH-G2). He also mentioned that training methods must be sensitive to Saudi culture to ensure students are properly engaged. Finally, the importance of understanding the culture was outlined as the crucial first step to moulding and adapting it towards one that is more open-minded in relation to tourism: "It is necessary to know the nature of Saudi students to be able to change their mentality" (Al-Hokair-T2). This change is sure to happen first in the classroom.

#### 7.2.5.6 Cooperation between TVET institutions and organisations

##### *7.2.5.6.1 Cooperation with companies to develop TVET courses*

The structural skills mismatch between the provision of skills and labour market demand can be addressed by strengthening the channels of communication between education and work. To ensure that training curricula cater specifically to the needs of the market, TVET authorities need to be in direct contact with the tourism market: "There must be cooperation between responsible authorities in the tourism sector" (SCTH-D4). This would require all stakeholders in the training-to-work process to engage in deep-rooted collaboration to communicate skill needs, develop curricula, and share the delivery of training in schools and the workplace. Cooperation will also ensure curricula remain relevant and up to date as the industry evolves, particularly considering that the tourism industry is still relatively new in Saudi Arabia and is thus constantly adapting to the changing regulatory framework and to social and market needs: "We need to involve hotels and professionals to get their knowledge and transfer it into education programmes" (Mövenpick-D1). An example provided is the partnership between SCTH and the TVTC (as mentioned earlier). By working together, these organisations could develop training programmes that cater specifically to tourism jobs: "At SCTH we developed training courses in the TVET institutions and we cooperated with them to put a suitable curriculum in place" (SCTH-T1).

Moreover, collaboration with companies in the industry is the best way for training centres to provide hands-on training: "There must be relationships between the education institutions and the employment establishments in the private sector so that graduates can be sent directly to work" (Mövenpick-G1).

Other interviewees spoke about the need to coordinate with international training authorities and leading tourism companies to develop training programmes in KSA that consider global best practices: "I think the use of international authorities will contribute significantly to the development of curricula" (SCTH-D2); "Training authorities must make programmes to develop Saudis as the Intercontinental does. We also have a programme in Mövenpick called Developing Saudis which could be integrated into current training programmes nationally" (Mövenpick-D3). This programme enables Saudi employees to develop their skills and to work towards leadership and managerial positions, by setting development goals and receiving feedback on their progress towards these. Additionally, many interviewees emphasised the importance of following international standards and accreditation: "there must be accreditation from international authorities. We must use experts and specialist trainers to prepare curricula and provide excellent training, in accordance with the international educational and training authorities" (SCTH-D2). If the training system delivers outputs that could work anywhere in the world, graduates will undoubtedly be sufficiently qualified to work in Saudi Arabia: "We need to have a global professional accreditation system for tourism. Saudis who work in hotels here should be able to work anywhere in the world. Such standards should address the curriculum and how to teach it. So, the training must be on a global level" (SCTH-D3).

To realise such global standards, the interviewees suggested establishing strategic partnerships with leading international players to manage and administer TVET centres, similar to the existing partnerships with HTMI and the William Angliss Institute (mentioned in 7.2.3.2.1): "Training centres should be administrated by foreign educational authorities from different countries like Australia, Britain, Switzerland, etc." (SCTH-D4).

## 7.3. Conclusion

This chapter has focused on TVET within the tourism sector in Saudi Arabia. Firstly, an overview of the sector was given, along with details about current practices and policies in the sector. This included secondary data about the tourism industry in KSA. The three organisations were then introduced, along with information about them (SCTH, Al-Hokair and Mövenpick) and their internal policies and practices relating to TVET.

The next section examined the primary data from interviews that were conducted with employees from SCTH, Al-Hokair and Mövenpick. This explored the participation of indigenous Saudis in the tourism sector, the skills profiles and labour market needs, and the current TVET system. As part of the analysis, six key themes were identified and used to organise the findings. The responsibilities of stakeholders for improving the TVET system was discussed, including the roles each stakeholder should play. The final section presented suggestions and recommendations for improving TVET practices and policies in the future.

# 8 Analysis & Discussion

## 8.1 Introduction

This chapter begins by providing an overview of the findings from the analysis of the primary and secondary data discussed in detail in Chapters Four to Seven. It follows a similar structure to each of the analysis chapters, but explores key topics across all three sectors, bringing together insights gained from both semi-structured interview data and documentary avoidance.

First, it provides a summary of the key policies related to employment and TVET, followed by a recap of the current employment figures and challenges faced in KSA. It then explores the current skills profiles of employees and the needs of the labour market, followed by a description of the current TVET system, the responsibilities of various stakeholders, and an overview of suggestions for future development.

The three sectors are then compared, with key similarities and differences being discussed and linked to the main themes identified in this research. These themes are then discussed in relation to existing literature and prior research, as described in Chapter Two. Finally, the chapter considers the significance of findings in relation to the research questions and objectives.

## 8.2 Summary of policies relating to TVET and employment

### 8.2.1 General policies, systems and strategies

There are number of general policies and initiatives related to TVET and employment of indigenous Saudi. These are managed by the government and public and private organisations, many of which focus on Vision 2030 goals. The most obvious one is Saudisation (job localisation policy) to increase indigenous Saudi employment. When the Saudisation initiative began, many labour market regulations were generated, such as Nitaqat, Liqaat, Hafiz, and wage protection systems (discussed in detail in Chapter Four). There are also some regulations related to Saudi women's employment, such as support for women's jobs in retail and factories, day-care centres, women's part-time work, telework, productive` families, and female transportation. Furthermore, numerous education and training programmes and initiatives have been established to boost indigenous Saudi skills and match to these with labour market needs. In particular, there is a focus on the improvement of skills related to technical and vocational occupations, since there is a severe shortage of Saudi workers in these industries, which are dominated by expatriate labour (Koyame-Marsh, 2016). Examples of nationwide systems are the national system for joint training, military vocational training, and colleges of excellence and colleges of technology, all of which focus on vocational and technical specialities as part of the King Abdullah Scholarship Programme. Moreover, several on-the-job training activities take place in order to develop or improve the skills of indigenous Saudis workers in their jobs so that they are prepared to compete in the labour market. These On-The-Job training programmes, which use the TVET training curricula, include the 'Your job is Your Scholarship', 'Training Ending with Employment', 'Takamol and Tamheer initiatives, and 'Doroob' programme, which facilitate the implementation of many On-The-Job training programmes (see Chapter four). It is important to note that most employment policies, regulations, training programmes, and initiatives to upgrade skills are financially supported by the government. (HRDF, 2017)

### 8.2.2 Policies specific to the ICT sector

The Information Communication and Technology (ICT) sector has been recognised as vital in transforming the KSA into a knowledge-based economy, which will in turn drive more ICT investment into the country (Arab News, 2015a; Global Competitiveness Forum, 2015;

Wansink, 2016). However, the ICT infrastructure and services industry currently suffers from a shortfall in skilled Saudi workers; accordingly, specific policies and practices to address this skills shortage have been introduced. To improve both the sector's competitiveness and skills development, the government is encouraging private sector investment through, for instance, the privatisation of governmental ICT companies. With specific reference to skills development of the Saudis, this comes through the increased exposure to technological developments in the industry and the provision of incentives to ICT companies to employs Saudis. Thus, the benefit of increased private sector investment in ICT is access to advanced technological development of the global industry (HRDF, 2017; Wang, 2014) for Saudis. Further, government financial efforts have been put in place to increase the supply of ICT professionals and technicians by providing financial incentives to ICT companies to attract and employ more Saudis (men and women) and then train them through Saudisation programmes, international training and e-learning programme. Moreover, the Commission of Information Technology and Communication (CITC) and the Ministry of Higher Education (MOHE) have set up performance criteria to monitor the achievements of long-term science and technology plans and to ensure that goals are being met.

Other collaborative efforts exist with the National Centre for Digital Certification (NCDC) to manage public key infrastructure (PKI) and the Ministry of Communication and Information Technology (MCIT) and CITC on the Home Computer Initiative aimed at increasing information technology access and the launch of the Digital Excellence Award which highlights and rewards creators of Arabic content on the Web. ICT private organisations also contribute to the development of policies and initiatives that promote indigenous skills and employment, such as the Cisco Networking Academy and the Netversity online platform graduate programme (explained in Chapter Six). Moreover, there is commitment towards ICT research and development via cooperation between universities and private ICT companies like STC and Cisco. Finally, there are several technical training programmes to educate and develop Saudis' skills and knowledge through national and international strategic partnerships, many of which focus on ICT specialisations (see Chapter Six).

### 8.2.3 Policies specific to the tourism sector

Tourism is regarded as the second most important sector for economic development in Saudi Arabia and has thus been targeted for improved Saudisation. The Saudi government aims to make tourism one of the leading sectors in creating jobs for indigenous Saudis through the adoption of numerous policies and initiatives that promote tourism. For example, policies designed to increase the participation of indigenous Saudis include the Nationalising Tourism Occupations initiative, Nitaqat (colour-coding quota system), Your Job is Your Scholarship and with particular emphasis on encouraging women participation, the Baraa (artisan) programme. Moreover, a number of initiatives centre on increasing awareness of the tourism industry and an understanding of its importance to the country, by identifying tourism resources, tourism job opportunities, investment opportunities and encouraging domestic tourism such as the Live Saudi Arabia programme, as well as Tamkeen (explained in Chapters Four and Seven) and the Smile programme, which focuses on providing tourism education in schools and encouraging children to learn about their local history and heritage.

Another important initiative is the Responsible Development initiative, which provides a unified communication strategy for stakeholders to collaborate and find opportunities for investment by contributing to human resources training. By increasing collaboration, it is hoped to increase tourism productivity and cooperation between public and private educational and training institutions, thereby better ensuring that the skills provided meet the needs of the labour market. To increase tourism investments, there are also some initiatives, such as the Saudi Travel and Tourism Investment Market and National Built Heritage Forum, which provide a forum for companies to meet employees. Tourism Licensing allows the government to verify and accredit companies operating in the industry (see Chapter Seven). There is also a deliberate policy to ease visa restrictions to encourage more overseas tourists to the country. As religious tourism plays a significant contribution to Saudi Arabia, the Committee for Promotion of Virtue and Prevention of Vice (CPVPV) has been mandated to build relationships with religious and traditional groups in order to enhance their support and to promote tourism in a way that fits with Saudi social beliefs.

## 8.3 Participation and employment of indigenous Saudis

### 8.3.1 General participation of indigenous Saudis

Actual figures for Saudisation in overall employment indicate that around 45% of the workforce is Saudi, which is below the target figure for the current period, and well below the eventual government target of 75% Saudisation *(*Koyame-Marsh, 2016*)*. However, recently Saudi indigenous participation increased slightly in Saudi labour market (Ministry of Labor, 2016). Generally, the labour force participation rate of indigenous Saudis in vocational and technical jobs is considered insufficient, specifically in manual or blue-collar jobs. This is perceived as being mainly due to socio-economic and socio-cultural factors such as a lack of awareness of TVET, preference for work in the public rather than private sector, and preference for managerial jobs over manual or physically demanding jobs. Family pressures can also influence decisions to participate in vocational and technical jobs, which are associated with low status and salary, leaving employers to rely on expatriate labour for such jobs. Employers also have a bias against Saudi workers, overwhelmingly preferring to employ foreigners, since the latter settle for lower pay while demonstrating higher skills, have a better work ethic, and are more easily controlled than their Saudi counterparts.

There is also a large difference in participation between male and female Saudis: 78% of Saudi employees are male, and only 22% female (World Bank, 2018) Limited job opportunities for women in the Saudi labour market further increases the dependence on expat workers to fill roles; this has been attributed to poor application and monitoring of employment policies and incentives such as Saudisation and Nitaqat. For example, employers have been known to provide false employment statistics in order to meet Saudi employment regulations and avoid penalties (Saudi Gazette, 2016). Additionally, there has been the common practice in the private sector to hire 'fictional workers', whereby Saudis are hired and paid to stay at home, as a measure to boost Saudisation quotas while avoiding the low productivity and disruption associated with Saudi workers.

The preference of Saudi natives for public-sector work was evident in the interviews, as respondents from government organisations claimed that indigenous Saudi participation is high, whereas interviewees from private and international companies claimed the opposite.

### 8.3.2 Participation in ICT

As indicated in the interviews, the indigenous participation rate is higher in the ICT sector than in tourism, which has largely been attributed to the fact that Saudis are more knowledgeable about the ICT sector and because it provides higher pay with faster career promotion. Between 2014 and 2017, there was a rapid increase in Saudi employment in the ICT sector, from 165,000 to 213,000 employees (CITC, 2015), with the sector achieving a 58% Saudisation rate in 2016 (General Authority for Statistics, 2016). Despite the overall increase in Saudi employment in ICT, there is substantial variation in the experience of various disciplines within the ICT field; for example, areas of application development, field operations, networking and cabling, sales and the mobile market remain characterised by very low levels of Saudi participation. Therefore, Saudisation may be increasing in some sub-sectors but decreasing in others. For example, there is 28% Saudisation in computer programming, but 83% Saudisation in wireless telecommunications (General Authority for Statistics, 2016). Participation also varied across the sector according to whether a company is private or public, or whether it is a large multinational or a small local company.

The Saudi female participation rate has improved in ICT compared to the tourism sector due to appropriate work environments being made available to Saudi women (i.e. separate women's departments), yet the ICT sector still faces challenges associated with gender discrimination and employers' preference to hire males rather than females, resulting in demotivation among Saudi women pursuing training and employment in ICT. KSA has the lowest female employment rate among the GCC countries, with only 6% of ICT workers being female (Trumpe, 2015).

The interviewees in ICT also explained that the indigenous labour force participation rate is influenced by cultural barriers, such as perceptions of job status, and working environment and conditions, as well as in the level of pay and fringe benefits offered. For example, the participation and retention rates in operating companies is higher than in contracting companies due to higher salaries, increased job security and shorter working hours. In comparison, expatriates are more prevalent in contracting companies.

### 8.3.3 Participation in tourism

Between 2011 and 2016, the participation rate of Saudis working in the tourism sector has remained at around 25%, which is lower than the general employment participation rate (General Authority for Statistics KSA, 2016). Although the total number of Saudis working in tourism has increased, so has the total number of employees and expatriate workers; thus, the Saudisation figure in this sector appears to be stagnating. The percentage of indigenous Saudis employed in the tourism sector is low for a number of reasons, including the socio-cultural perception of tourism jobs as inferior in terms of salary and status, especially those related to hospitality and service fields (i.e. chefs, waiters, housekeeping). This negative perception adversely affects Saudi youth's choice in entering the tourism field.

The KSA is a religious country, ruled under Islamic law. Saudi society also has a strong culture of traditions and customs, which results in reduced participation of Saudi women in the tourism sector due to its mixed-gender working environment which conflicts with gender segregation rules.

The work ethic in the tourism sector is perceived to be low and there is little desire and motivation among indigenous Saudis to progress in the field. As a result, retention rates are low, with a large number of Saudis switching careers to more prestigious sectors. This not only results in high turnover costs, but also in loss of knowledge learned on the job and reduced return on investment.

The interviews reveal significant differences in tourism activities and awareness across different cities within KSA. For example, tourism activities and awareness are higher in Jeddah, which is a modern commercial hub and gateway to the pilgrimages of Mecca and Medina on the Red Sea, than in Riyadh. Generally, Saudis have low awareness about the tourism industry; hence their participation is low. Recently, indigenous Saudi participation has been improving due to government development programmes, which support private and public organisations in relation to tourism training and education, as well as in investments to increase tourism awareness and job opportunities. There is also an increasing emphasis in providing opportunities for women.

## 8.4 Skills profiles and labour market needs

### 8.4.1 Skills of current workforce and graduates

#### 8.4.1.1 General skills of indigenous Saudis

Many interviewees claimed that indigenous skills do not match the needs of the Saudi labour market, especially in relation to non-cognitive/generic skills such as communication, teamwork, problem solving, self-development and presentation and writing skills, and more generally in the ability to work and learn independently and to bring commitment and a better work ethic to employment. Moreover, they mentioned the lack of cognitive skills, particularly in IT and language skills. In addition to having inadequate generic or transferable skills, indigenous Saudis also lack the specialisations required in many jobs, leading to private sector employers' reliance on expat workers. Although there has been some progress in the availability of specialised training, many Saudis who choose to pursue such training end up working in fields different from their area of study.

Figures from 2016 indicate that 36% of Saudi employees have a bachelor's degree or higher, and 37% have attained qualifications from secondary education or a vocational qualification of the equivalent level. Around 9% have a higher diploma which is obtained after high school and which is most likely from a vocational course (General Authority for Statistics, 2016).

#### 8.4.1.2 Skills in ICT

In general, the interviews reveal that the ICT sector is plagued by skills shortages among natives. Not only is it highly technical, but also the sector requires highly specific skills in a multitude of specialisations due to the abundant technologies involved and the diverse ways in which they are applied. Considering that most Saudis choose to specialise in humanities and social science subjects rather than in science and technology, the specificity and diversity of skills required makes it even more difficult to find native candidates with the right skillset. Moreover, since the sector relies on technology, it requires employees who are able to adapt to new developments rather than just those focused on a narrow set of skills, the latter being most common among Saudi nationals.

With respect to Saudi youth, despite having become more technologically focused in recent years, the interviews revealed that young Saudis need further training and practical experience to be fully ready for the labour market, with many respondents stressing the need for improved practical training. Although it was mentioned that graduates from well-ranked universities possess ICT skills that match job requirements, graduates from TVET training faculties require significant practice and training to be able to do the same job. In particular, employers perceive the graduates with TVET diploma degrees as less qualified than graduates with university degrees, and thus they discriminate against graduates from Saudi's current TVET system, arguing that their skills are below average and need a lot of training to be able to handle the job. This suggests that the quality and standards of TVET qualifications need to be improved to ensure that students from all training institutes acquire a similar level of skill, which will result in TVET gaining a better reputation among employers.

The interviewees reported that Saudi women are generally less skilled in ICT than men, with fewer women choosing to undertake training in the field. One reason for this is that, with most tutors being male, gender segregation makes communication difficult for women, resulting in their skills being less developed.

Contrary, some large national and multinational ICT organisations that provide in-house training programmes for their employees are satisfied with the skills level of their training outputs, claiming that the skills developed match their requirements. However, in smaller or local private ICT companies there is less investment in training employees due to high costs. It is also impractical for them to employ people and train them on the job.

#### 8.4.1.3 Skills in tourism

Generally indigenous Saudis are shown to lack key skills required by the tourism labour market; thus, skills gaps and shortages are high in this industry. In particular, Saudis lack foreign language skills, especially in English, which are essential for individuals working in tourism. Therefore, dependence on expatriate workers is high in this sector because they speak English, are perceived to be more committed, and expect a lower salary. Another key skill required is rich knowledge about the local history and heritage sites in the country. It was evident that indigenous Saudis have poor knowledge about local heritage and KSA history.

Moreover, indigenous Saudis are seen to demonstrate a lack of desire and motivation to work in tourism, which leads to further shortages of qualified indigenous workers.

### 8.4.2 Skills needed by employers

#### 8.4.2.1 General skills required

Most employers require their employees to have essential soft skills (transferrable), such as self-development, motivation, communication skills, high commitment and a good work ethic, and flexibility to adapt to new skills and changing conditions, in addition to having relevant practical experience. Employers also seek specialised skills for specific roles. Most technical and vocational jobs need more specialised employees who can complete demanding tasks, work independently, and handle the stress that comes with employment. Employers claim that, although they do not expect fresh graduates to be completely ready for a job, and that new graduate employees will require some on-the-job training, they nevertheless expect them to have basic and essential knowledge and skills.

#### 8.4.2.2 Skills required in ICT

In the ICT sector, employers require a combination of technical skills (hard skills), and administrative skills (soft skills). Employers require employees to possess appropriate technical knowledge and expertise to conduct research and development. Moreover, the rapid changes in the ICT sector require that people have continuous learning and development skills so that they remain updated with technological changes.

#### 8.4.2.3 Skills required in tourism

General skills required by employers in the tourism sector include English language skills, a good work ethic, commitment, IT skills, and knowledge about local areas and places of interest for tourists. Employers also require specific skills according to the type of work. For example, tour guides must have a rich knowledge of the local history and heritage sites; travel agents

must obtain marketing and services skills and have updated knowledge and travel experience. Employers attributed the low levels of tourism skills prevalent among indigenous Saudis to poor levels of tourism and hospitality training and education as well as to poor awareness of the industry, which is still underdeveloped. Employers are looking for individuals willing to work long hours for low wages; thus, expatriates are preferred to indigenous Saudis. Thus, as Psacharopoulos (1997) argues, the economy and wage/salary structures may make some skills unattractive thereby discouraging many people from taking up such skills. This seems to be the case in Saudi Arabia and contrary to other cases where the skills have been acquired but the local or national economy is unable to absorb the graduates (Gray *et al.*, 1996).

## 8.5 The current TVET system

### 8.5.1 Impact of the existing system

#### 8.5.1.1 The TVET system in general

Although some governmental organisations interviewed have positive views on the current TVET system, contrasting views were expressed by most interviewees. The positive views obtained from some governmental organisations interviewees could be attributed to interviewee bias considering that they are the main organisations responsible for TVET in KSA.

According to the interviews, the existing TVET system is perceived as failing to provide indigenous Saudis with the skills needed by employers in many areas of the labour market. This is due to the mismatch between the quality of programmes provided by TVET institutions and the skills employers look for, resulting in graduates who are underprepared to start work. There is a perception that less academically inclined students with low grades are sent to TVET institutions, with elite students directed to higher education and university. This stigma is reinforced by the poor level of performance and productivity associated with TVET graduates due to an inadequate training system. It is argued that one reason for the weak system is that incentives are not performance-based, but rather are geared towards quantitative expansion. Additionally, an imbalance between theoretical and practical training is perceived to exist in TVET institutions, with training programmes being too heavily weighted towards academic learning to the detriment of practical training. Moreover, TVET curricula are seen not to be updated regularly enough, with trainers' skills similarly outdated, which is reflected in the poor level of knowledge transferred to trainees. This is consistent with Sifuna (1992, p. 143) observation that most trainers handling vocational subjects in the colleges are "generalists and they are therefore ill-equipped intellectually to pass on technical knowledge and skills" to their students.

The interviewees argued that the bias against TVET training negatively affects the perceptions and decisions of young people and their families, resulting in a lack of applicants for many specialisations and industry areas.

TVET institutes do not sufficiently assess and monitor their outputs after graduation; thus, there is a lack of information about the outcomes of the system making it difficult to improve methods based on evidence.

Geographical differences were argued to have an impact on the efficiency of TVET systems. For example, TVET in the eastern region of Damman has a positive impact because of its tight connection with the private sector, which has led to successful programmes such as on-the-job training. The culture and mindset also varies slightly by region; thus, TVET is perceived differently in the eastern region compared to the central region of Riyadh. Although TVET institutes are located throughout various KSA cities, the interviewees claimed that there is inconsistency in awareness and access to these institutions.

Despite these drawbacks to TVET training, some participants reflected positively on the recent TVET system developments, claiming that a growing number of Saudis are being directed towards vocational jobs. The initiatives highlighted by firms to be most effective at providing successful TVET provision include the Colleges of Excellence (as explained in Chapter Four) and the investment in training provided by international companies.

#### 8.5.1.2 TVET for the ICT sector

The TVET system for the ICT sector was identified by interviewees as ineffective in providing skilled employees who meet labour market demands. This was argued to be mainly due to ICT curricula in training institutes being too broad and thus not offering the specialist skills required by the job market. Moreover, it was explained that equipment is not always up to date and that trainers do not receive continuous training to ensure their knowledge remains relevant, both of which are problematic in the rapidly changing ICT sector.

#### 8.5.1.3 TVET for the tourism sector

Most respondents were positive about the ability of the internal TVET systems implemented in their organisations to impart market-relevant skills to trainees. However, biasness may be present in these views considering their involvement and the need to portray achievement.

Nonetheless, the research identified that current TVET systems related to tourism and hospitality are in general unable to adequately meet labour market requirements due to the limited variety of tourism specialisations available, the low capacity of training institutes to provide tourism and hospitality specialisations, and the inadequate provision of practical training, which is considered essential in the sector.

Aside from deficiencies in the structure and implementation of the TVET system, particularly in relation to the field of tourism, there was consensus among interviewees that the overarching impediment to the success of TVET is the unwillingness of Saudi nationals to participate in hospitality and blue-collar jobs, which relates to a lack of awareness about the tourism industry and its benefits to the Saudi economy.

### 8.5.2 Areas of weakness and best practice

#### 8.5.2.1 General TVET practices

In terms of government and company policies regarding TVET, the interviews indicate that limitations to the effectiveness of TVET in KSA include a lack of collaboration between stakeholders, such as the government and industry, in developing cooperative training and strategic partnerships between TVET institutes and the labour market. Similarly, the interviewees addressed the need for unified efforts among responsible bodies to develop training programmes and curricula in line with market needs, particularly in improving the provision of transferable skills (i.e. communication, language and IT skills, as well as teamwork, commitment, and work ethic).

They also mentioned the failure to implement certain education policies, such as the aim of directing 38% of high school graduates to TVET institutions. The lower number of students entering the system leads to pressure to qualify the majority of students, regardless of whether they have attained the necessary skills, in order to reach graduate targets. This emphasis on quantity over quality reinforces the poor perception of TVET qualifications among employers.

As best practices, some interviewees cited the importance of implementing skill-assessment tests prior to students choosing their specialisation as a measure to improve the effectiveness of TVET, as the tests help guide students to the development pathway that best suits their skills and motivations, thereby reducing dropout and career change costs.

With regards to socio-cultural practices, many interviewees mentioned the need to spread the importance of TVET across the country through the media and events that promote TVET and by engaging students with TVET from early stages at school in order to attract more indigenous Saudis to TVET and to change the prevailing stigma attached to TVET that results in academic education being preferred.

In terms of legislation, some initiatives are perceived as being beneficial and necessary, such as enforcement of private sector cooperation with training authorities and institutes, and legislation that promotes the sharing of financial responsibility for economic and social developments. An example is the Fifty-Fifty initiative, in which employers and the state pay an equal share towards the salary of Saudi TVET graduate employees.

Finally, the importance of TVET catering to different market needs according to geographical area was discussed to ensure skills are best matched to the local context.

#### 8.5.2.2 TVET practices in ICT

As mentioned above, the interviewees claimed that inadequate provision of TVET in the ICT sector is leading to shortages of Saudis with specialist skills, and hence to an overreliance on expats to fill vacant positions. Some respondents attribute this to a lack of practical training and dynamic learning and teaching techniques, as well as failure to update curricula. Other limitations include high expenses related to technical resources, lab-building labs and updating of tools, which are essential to the quality of ICT education and training. Therefore, partnerships between ICT training institutes and private companies are necessary to keep up to date with training methods and technology provided to schools, trainers, and trainees.

In addition, there is a low desire among Saudi youth to take up ICT specialisations due to poor perception of ICT professions, especially concerning manual and hard technical duties. TVET

practices should, therefore, include increasing awareness to educate the public about the industry.

#### 8.5.2.3 TVET Practices in tourism

TVET related to tourism in KSA has limited training faculties compared to other sectors, with a lack of schools offering specific hotels and tourism specialisations; most provide only general, broad skills. Additionally, training faculties are not providing necessary skills, such as communication and languages, and there is a lack of practical training and work experience, both of which are important in this sector. The poor perception of tourism jobs among Saudi indigenous is also related to a lack of awareness about, and the cultural perceptions of, the tourism industry.

Therefore, increasing tourism awareness at an early stage of education and through the media can improve perceptions of tourism. The best practices identified to improve tourism employability and skills involve stimulating cooperation between government authorities responsible for TVET and private tourism companies nationally and internationally, such as the agreement between King Saud University and Al-Hokair group to provide practical training, and promoting collaboration between international organisations and SCTH (Saudi Commission of Tourism and Heritage) to provide Certified Meeting Professional (CMP) and the Meeting Professional International (MPI) training conferences on hospitality and tourism.

## 8.6 Stakeholder responsibilities

### 8.6.1 Responsibilities for TVET and general employment

According to interview responses, the government is seen as responsible for developing clear policies and legislation that can help to overcome barriers and facilitate TVET development plans. The government is also considered responsible for controlling the number of expatriate workers and for putting policies in place that aim to reduce the high rate of Saudi unemployment. Additionally, the financial prowess of the state was noted as significant in providing incentives for students to follow TVET development pathways, such as through scholarships, and for encouraging private companies to collaborate with training institutions.

The interviewees claimed that TVET centres are responsible for ensuring that training curricula remain labour market relevant by linking their practices with the workplace and emphasising strategic partnership and cooperation between them. Thus, interviewees perceived the role of employers as not only to provide employment opportunities for trainees, but also collaborate with TVET centres in skills identification. It is also essential that TVET centres' facilities and equipment are up to date, which will rely on funding from governments or investment from private companies. Moreover, it was stated that training institutes are responsible for ensuring that trainers are qualified and remain well informed by providing avenues for continuous development.

Trainers were noted to be responsible for remaining knowledgeable and up to date in their areas of practice by continuously learning new teaching methods. They also play a vital role in changing the negative perception of TVET by motivating and inspiring learners.

The interviewees mentioned that trainees are responsible for making long-term decisions regarding their future and for ensuring they prevail and stay committed to their chosen area of study. The need for self-development and independent learning was also addressed.

Finally, it was stated that graduates must work in their specialisation, provide feedback to TVET institutes after joining the workplace, and share their knowledge and experience with the TVET community through mentorship, in order to allow for improvements to the system. The

relationship should not end at the point when training is complete, as there should be ongoing monitoring of outcomes.

### 8.6.2 Responsibilities within the ICT sector

Stakeholder responsibilities within the ICT sector did not differ much from what has been mentioned in the previous section. Governmental ICT organisations are responsible for strengthening cooperation with the ICT private sector and for developing curricula that match labour market needs, as well as for funding and monitoring ICT developments regarding skills, qualification and employment. The biggest difference with ICT is the pace of change and the need for more dynamic and adaptable systems, including access to up-to-date equipment and technology. Collaboration is, therefore, even more essential.

The interviewees perceive that TVET institutes within the ICT sector are responsible for designing curricula that meet the needs of the labour market, with an emphasis on practical training through strategic partnerships with the private sector. They also mentioned the institutes' role in facilitating and directing students to various ICT specialisations, as well as for ensuring that the institutes provide consistently high quality of teaching. Finally, it was indicated that institutes and colleges are essential to improving employers' perceptions of TVET qualifications.

The interviewees claimed that trainers must continuously update their methods of teaching and ensure their knowledge remains relevant to ICT industry trends, and that they are responsible for keeping trainees motivated and engaged with the sector. According to the interviews, the role of trainees and graduates was as stated for general employment (see previous section).

### 8.6.3 Responsibilities within the tourism sector

A clearly identified common role among all stakeholders in the tourism sector (government, TVET centres, trainers, trainees, and graduates) is to increase tourism awareness across society. Government and TVET centres were thought to share several responsibilities, such as

ensuring training curricula match labour market needs by promoting cooperation with the private sector, keeping training programmes updated, financially supporting training, and opening more training centres throughout the kingdom, especially in catering because it is very limited but in high demand. It was mentioned that one of the unique aspects of tourism is for training to focus on local areas, such as the history and type of tourism (i.e. business, religious, local or foreign) unique to the area in which students might work. The sector also relies more heavily on foreign language skills; thus, it was stated that TVET centres must employ skilled language teachers. Other identified roles of stakeholders were consistent with the responsibilities outlined in the previous two sections.

## 8.7 Suggestions and recommendations

### 8.7.1 Suggestions and recommendations for TVET and general employment

To take TVET and employment in Saudi Arabia forward, several suggestions and recommendations have been identified in the research and should be considered by policymakers to reduce the skills gap and shortages, and consequently youth unemployment too. Policymakers should aim to influence Saudi career choices by providing incentives and motivations towards TVET fields of study and work. There should also be a major effort to increase awareness of TVET opportunities and to promote a more positive perception of the status of TVET, so as to change the dishonourable reputation associated with TVET among potential students, employees, their families, and employers. To achieve this, it has been suggested that TVET should be discussed from an early stage at school and should be promoted via mass media. The Saudi cultural barriers which deter indigenous Saudis from contributing to technical and vocational industries, on account of their perceived low status, low pay, and inappropriate work environment for Saudi women, should also be addressed.
There must also be greater collaboration between organisations in order to understand the labour market and its needs for skills. The World Bank (2009) emphasise that the relevance TVET programmes, and thus, the employability of graduates of the TVET system depends on a strong symbiotic relationship between training providers and the key players or actors in the labour market. For example, industry partners should be directly involved in the development and evaluation of curricula and standards. Additionally, regulation and state influence over private organisations should be used to enforce practical and on-the-job training, such as by providing financial incentives to encourage organisations to engage in TVET programmes and training.

Building cooperative training and strategic partnerships between TVET authorities, institutions and industry will also ensure the provision of the right local skills in various cities throughout KSA. In this way, addressing geographical differences through a more flexible national system allows employers and employees to seek and find work in many regions.

Incentives for TVET centres need to be aligned to a focus on training provision and quality to improve so that students graduate workplace-ready, rather than being focused on numbers. Similarly, Masson *et al.* (2010) identified the need to improve quality in the Mediterranean

countries whilst Heyneman (1997) highlighted this aspect for Middle East and North Africa countries. Moreover, it was noted that the capacity for some TVET specialisations need to be increased and that qualified trainers should be given incentives to develop their own skills. There also needs to be more links to the wider education system and clear career pathways with a common qualification system and TVET framework designed to fit with specific Saudi Arabian circumstances. In this respect, TVET system should be partly responsible (along with general education) in providing students with information about their future career path, which will enable them to make better decisions and reduce the number of dropouts and career changes.

With particular reference to government in spearheading change, what is needed is a comprehensive strategy and framework to guide the change. The guidelines for such a comprehensive strategy and framework can be summarised as follows:

- Political: review of Saudisation policies in light of their effectiveness at narrowing the skills mismatch gap or reducing unemployment
- Economic: review of educational policies in accordance with the economic strategy of diversification and the needs of the new economy (e.g. the vision of becoming a knowledge economy)
- Socio-cultural: review of educational policies in light of the need to change perceptions of TVET in comparison to other types of education
- Technological: review of educational policies to keep up with advances in information and communication technologies and to develop human capital that is technologically skilled
- Legal: review of educational policies in accordance with global human rights legislations, especially concerning the participation of women in the economy.

Importantly, the above points need to be addressed at both macro and micro levels. The macro level includes the strategies, plans, and policies necessary to achieve the overall vision, while the micro level includes the activities necessary to make changes at the levels of individuals, organisations, and society (Achoui, 2009). Finally, all the above suggestions and recommendations should be monitored and controlled so that information-based evidence is available to make improvements.

### 8.7.2 Suggestions and recommendations for ICT sector

The suggestions and recommendations provided by interviewees for development of TVET in the ICT sector are mostly in line with the general needs and suggestions for the overall TVET system. The idea of greater incentives and motivation toward ICT careers in terms of job status and income was emphasised as being particularly important to increase indigenous Saudi employability and skills in this sector. Increased ICT awareness regarding its benefits and importance to the country would change the shaming culture associated with technical and vocational jobs. This can happen through strong collaboration and cooperation between different authorities, such as TVET organisations, the Ministry of Communication and Information Technology, the Ministry of Education, the Ministry of Culture, and the mass media to divert the focus and intentions of Saudi youth towards ICT careers and specialisations which in high demand in the labour market. ICT is unique due to its reliance on technology and its relatively young workforce, so there is a need for more flexible training that is adaptable to changing needs. It is also reliant on having quality and up-to-date equipment for training. The general education system should introduce students to the sector at a young age and include industry-standard technology and tools in class. There should be an emphasis on practical training, assessment tests, and quality assurance standards to be able to compete globally and monitor the required standards for continued development associated with rapid change in this sector.

### 8.7.3 Suggestions and recommendations for tourism sector

Interviewee recommendations for the tourism sector include training incentives to influence Saudi youth towards a career in tourism, and it is suggested that graduates should pay back financial incentives if they do not choose to work in tourism. The power of the media was also mentioned in its ability to increase awareness of the tourism industry and its economic and socio-cultural benefits, through expanding national campaigns such as “know your country”.

Moreover, it was identified that efforts need to be made to tackle Saudi cultural barriers that limit female employment in the tourism sector, by creating workplaces, which attract females and allow them to work in accordance with tradition and cultural norms. Stakeholders should aim to change perceptions of the tourism industry and specific jobs such as cooks,

housekeepers, and receptionists. It was suggested that monitoring and control of graduates is needed to evaluate the quality of TVET centres and ensure that programmes match labour market needs in terms of skills. Additionally, Saudisation initiatives must also be monitored more closely as it is claimed that quota systems like Nitaqat have not been applied strictly in the tourism sector. Companies should not only need to have a certain percentage of native workforce, but should also ensure that a percentage of high-level employees should be indigenous. Labour rights and work environment need to improve to increase job stability and attract workers to the field as a long-term career, through for instance, raising wages and establishing governmental policies would show government support for the tourism industry.

Professional tourism licences for indigenous workers in the industry can improve professionalism and standards. This could be through the monitoring of adherence to nationally enforceable benchmarks of performance and excellence that underlie a licensing process. In terms of the tourism education system and employment pathways, it is suggested to focus on practical training and to develop clear tourism career paths, which provide the opportunity for trainees to continue developing and to take the right decision for their future job, thereby reducing dropout rates. There also needs to be a stronger focus on education policy related to proficiency in English language, as it is essential in this sector. The low number of qualified trainers in the tourism field indicates the need to attract and invest more in qualifying trainers, who will also be able to inspire young people to promote their native country. Cooperation between international and local organisations is crucial to develop tourism TVET systems and to provide the skills needed in the labour market. This will also help to boost the economy in general by opening it up to investors who would be involved in developing human resources.

## 8.8 Key similarities and differences between ICT, tourism and public sectors

The analysis of the interviews in Chapters Five, Six and Seven led to the identification and definition of six key themes. Each of these themes were discussed, albeit to different length, by respondents in relation to the current TVET system, which included identification of the system's weaknesses and areas for development.

From the discussion above, several key similarities and differences have been identified between the ICT, tourism, and public sectors. This section discusses the similar and differentiating factors according to the responses of the interviewees and the secondary data included in the earlier analysis for each of the six themes.

### 8.8.1 Themes 1 and 2: Saudi cultural barriers, career choices and awareness

The first two themes relate to the cultural barriers, which significantly influence Saudi youth's career choices, hence playing a key role in preventing some people from entering training or employment in both ICT and tourism. Both sectors have similar negative perceptions associated with them, such as low wages and low social status. Not only are young people less attracted to these roles, but also their family members are likely to discourage work in this area in favour of more traditionally high-status jobs. Another important issue related to cultural barriers is women's inequality and the difficulty for women to work in the same settings and roles as men. Another cultural factor that hinders the success of TVET in Saudi Arabia concerns the lack of awareness of the jobs available and of the specialisations and work involved. Therefore, both ICT and tourism are in need of policies and campaigns to increase awareness and to generate a more positive perception of jobs in these industries. In terms of differences between the two sectors in the level of awareness and participation rate of indigenous Saudis, the interviews clearly suggest that more Saudis are involved in ICT due to higher incomes and faster promotion tracks associated with the sector. On the other hand, the tourism sector depends highly on expat workers and has lower status, reduced benefits, longer hours, and harsher working conditions. The work environment is also unfavourable to Saudi women.

Tourism awareness among Saudis is very low with many lacking knowledge about the heritage and history of the country. The lack of knowledge partly contributes to the negative perception and inferior views of the tourism industry and its employment opportunities, which deters Saudis from choosing tourism as their field of study.

Many of the national institutions, strategies, and policies, which are currently being implemented in Saudi Arabia, are consistent across the entire labour market, as well as the education and training system. These systems aim not only to develop skills and prepare people for work in a variety of sectors, but also to develop the economy and to increase cooperation between public and private organisations. One priority is to increase the proportion of native Saudi workers and to reduce the need for employers to rely on expatriate workers. One of the key policies relating to this is Nitaqat, which applies across the ICT and tourism sectors, as well as the public organisations associated with the government.

However, the public sector in Saudi Arabia is witnessing a high rate or even saturation of Saudisation across different sectors. This is due to better employment regulations in terms of working hours, income, status, job security, and development opportunities. On the other hand, private sector shares more than 50% of the total GDP and most of its employees are expatriates. This is due to complicated work regulations in terms of high commitment levels and work ethic, requirement of quality soft skills, long working hours, less opportunity for development and promotion, lower salary in some low status jobs, less job security and higher business competition. Recently, and especially since the implementation of the Saudisation policy, some large multinational companies in the private sector began to attract more Saudi employees and to contribute to training and education in order to facilitate indigenous Saudis to have the required skills and to share in social responsibility. Therefore, Saudi employees began looking for employment in the private sector and to influence others to be involved more in private-sector businesses.

### 8.8.2 Themes 3 & 4: Cooperation between TVET institutions and organisations, and understanding the labour market and need for skills

Theme 3 concerns the collaborative relationships between direct stakeholders of TVET in both the ICT and tourism industries, namely the government, education and training authorities,

TVET institutes and public and private corporations. Such cooperation is fundamental for providing those responsible for the provision of training with key insights into labour markets needs and hence for ensuring that training programmes meet the industry's need for skills – which corresponds to theme 4. This is particularly important in the ICT industry in order to stay up to date in terms of the technology used for ICT, while in the tourism industry collaborative relationships help to encourage greater international tourism. Moreover, there is a need for private companies to invest in human resources development, training, and the TVET system.

Despite the research clearly indicating greater need for collaboration in both industries, there was some acknowledgement that the current level of collaboration that exists in the ICT sector is several degrees better than in tourism, which has significantly more improvements to make in this respect. One reason provided for this difference is that, apart from religious tourism, the tourism industry is still relatively young in Saudi Arabia. Moreover, it was suggested that the rapidly changing nature of the ICT industry itself instigates collaboration among corporations.

### 8.8.3 Theme 5: Wider education systems and employment pathways

The fifth theme applies to all the three (ICT, tourism and public sectors), as it relates to the wider education system and employment pathways. There is a need for development pathways to be clarified and developed in a way which appeals to students and leads to specialisations that meet the needs of employers. The TVET systems must integrate more efficiently with the general education system and the university system. Further, there is need to then differentiate the qualifications obtained through each route and to raise the quality and stature of TVET certificates.

### 8.8.4 Theme 6: Training provision and quality

The sixth theme identified is the need to improve the capacity and quality of training, in terms of teacher training, curriculum development, the quality of equipment and the methods used. A particularly important aspect of training that is essential to both ICT and tourism is an

increased use of on-the-job or practical training, so that students are better prepared for work. Both industries also rely heavily on soft skills (transferable skills or non-technical skills), such as team working and customer service, although it was noted that the tourism industry has an urgent need for language skills, in particular English, which is severely lacking among indigenous Saudis. Leslie and Russell (2006), for instance, showed the importance of foreign language skills in the tourism sector in continental Europe and UK and argue that this promotes cross-cultural interface.

Regarding increased training capacity, the government needs to attract investors who benefit from a better TVET system, and to use this investment to increase capacity and the quality of the outcomes of the system. From the research, it is evident that the tourism sector in particular is struggling from a scarcity of training in diverse specialisations, with the majority of TVET programmes focusing on generalised tourism and hospitality. The lack of diverse specialisations in TVET has been revealed by other studies in different countries. For instance, Goel and Vijay (2017) highlighted this in the context of India and Sultana and Watts (2008) in the Middle East and North Africa.

In order to achieve these goals, all sectors should be monitored more closely, so that reliable data is available and evidence can be used to make improvements. It is the responsibility of the governmental organisations, employers, and training centres to measure outcomes and to assess the needs of the labour market. This will allow students and employees to be more dynamically directed towards areas of need.

Both ICT and tourism currently have lower Saudisation rates than the targets set out. Both sectors require a greater number of highly skilled Saudi workers in order to reach Saudisation goal, and both sectors are also growing. They were investigated as part of this research because of their importance in the Saudi Vision 2030 strategy. ICT and tourism are both growing in terms of the GDP generated and the number of people employed. In order to increase Saudisation in these industries, it is necessary to recruit native workers into higher level roles, including highly skilled and managerial jobs. Both these industries rely on the TVET system, as well as on the wider education system, to provide the skills required.

## 8.9 Significance of findings in relation to key themes and research objectives

### 8.9.1 Key issues and debates in the cultural, social and economic context of Saudi Arabia

Saudi Arabia is the largest country of the GCC member states in terms of geographic area and population, and has the largest economy in the Arab world. The kingdom, therefore, not only plays a vital role in the MENA region, but also acts as a key geopolitical player both regionally and globally (Al-Asfour *et al.*, 2017). Saudi Arabia possesses many strengths that have contributed to rapid economic development, enabling the country to secure its standing as a key G20 member state. These include vast natural resources, an advantageous geographic position, and access to key markets (Ministry of Labour and Social Development, 2016).

For decades, Saudi Arabia's economy has centred on its enormous petroleum resources, with oil revenues transforming the country from an agricultural and basic-trade economy to one based on oil. As a result, the Saudi government has been the primary engine driving the economy forward: the state employs over two-thirds of working Saudis, finances most major projects, and strictly controls and regulates the private sector (Al-Asfour *et al.*, 2017). However, in 2016 the Saudi government announced its Vision 2030 strategy to diversify its economy away from the petroleum sector and towards a knowledge economy – an economy directly based on the production, distribution and use of knowledge and information in the creation of goods and services for wealth creation and socio-economic development (OECD, 1996). The chief catalyst for this large-scale transformation plan was the 2014-15 drop in oil prices, which put a strain on the kingdom's finances and forced the government to acknowledge the need to shift its economy towards a more sustainable path (Naseem and Dhruva, 2017). In order to unlock the full potential of Saudi Arabia's competitive advantages, Vision 2030 implies extensive structural reforms in all areas of the political, economic, and social spheres (Vision 2030, 2016).

Integral to transforming Saudi Arabia's economy into a knowledge-based one, Vision 2030 stresses the need to improve the development and skilling of its human capital, which represents the engine for economic growth in such economies, since individuals are bearers of

knowledge and technical know-how. By doing so, the KSA seeks to reduce the overall indigenous unemployment rate from 13% to 7%, to overhaul the education and training systems, and to increase the female participation rate from 22% of the labour force to 30% (Vision 2030, 2016). The remainder of this section discusses the current challenges facing Saudi Arabia's labour market as outlined in the literature and addressed by the research, while section 8.9.1.1.1 examines the difficulties faced by women in the kingdom. Section 8.9.2 discusses pertinent issues confronted by the education and training system, with the focus on TVET.

Arguably, the biggest barriers to Saudi Arabia achieving its full competitive potential lie in its elevated indigenous structural unemployment rate (13%), in particular its youth unemployment rate at 23% in 2017 (Jadwa Investment, 2017), and in the extreme segregation found in its labour market across several dimensions: between nationals and expatriates, between public and private sectors, and between genders (Al-Asmari, 2008). The literature and research conducted indicate that the underlying cause of these barriers result from a combination of structural, cultural, demographic, social and government policy factors and can be summed up by three of the six themes identified: Saudi society and culture (theme 1) along with women's TVET and employment, Saudi career preferences (theme 2), and the misalignment between the indigenous workforce and labour market needs (theme 3), as discussed below.

#### 8.9.1.1 Saudi cultural barriers (theme 1)

Saudi Arabia is a country steeped in rich heritage and culture. Since the country's founding, its path towards economic development and global integration has been marked by a delicate and determined balance between, on the one hand, the preservation of the traditions and values of its people and, on the other, modernisation and technology (Naseem and Dhruva, 2017). For decades, the kingdom enforced the country's customs and traditions through repressive laws and a closed political system of totalitarian absolute monarchy, which was justified on the basis of protecting its Islamic heritage (Clarke, 2007). Loyalty to the regime was guaranteed by a social contract of patronage characterised by state handouts and subsidies, and made possible by its immense oil wealth (Clarke, 2007).

As Saudi Arabia developed, it witnessed an ever-increasing number of contradictions between economic growth and its rigid political and social systems, with tensions between the two manifested in all areas of the Saudi social and economic spheres, including the structure of the workforce (Djafari, 2017).

Indeed, the Saudi labour force has long been characterised by limited Saudi mobility due to traditional roles (in particular for women, as discussed in 8.9.1.1.1) and a culture of entitlement, indolence, and absenteeism cultivated by welfare dependency (Elamin and Tlaiss, 2016). In large part, these cultural forces have contributed to Saudi Arabia's overreliance on expatriate workers, particularly in the private sector, where foreigners comprise 83% of the workforce (Ministry of Labour and Social Development, 2016). As explained by a Cisco director: "[Saudis] are not willing to work for more than eight hours a day [they refuse] to work overtime and are not fully committed. By contrast, expatriates are hard workers, don't mind working overtime and [are] committed" (CISCO-D2). The poor work ethic of indigenous workers was particularly evident in the tourism sector interviews: "Some workers do not like to perform; they are not punctual; they do not follow or forget their study or practice due to lack of desire and negligence in acquired skills; they do not have self-learning due to laziness" (Al-Hokair-T2); "The lack of interest of Saudi employees translates into a lack of commitment to their work" (Mövenpick-T1).

Moreover, cultural factors are instrumental in shaping human resource management (HRM) practices in the kingdom (Al Harbi *et al.*, 2017). Linked to its tribal origins, Saudi Arabia is described as a collectivist society, whereby the long-term commitment and loyalty to members of the "group" (religious sect, family or tribe) form one of the most important societal traits. Thus, Saudis place high significance on relationships, which help to determine one's status in Saudi society (Al Harbi *et al.*, 2017). Such personal connections are integral to the concept of "*wasta"*, which loosely translates as "connections", "clout", or "influence" used to get things done by cutting through bureaucratic red tape or by having exceptions made to the rules (Al Harbi *et al.*, 2017). By using *wasta* to perform a service, a person acquires prestige and honour, as it demonstrates their network, indicating high status in society. As an intrinsic part of Saudi society, *wasta* is embedded in all elements of Saudi society, including at the level of businesses. Thus, nepotism and cronyism are accepted practices in HRM leading to high selectivity in hiring and promotion processes, as managers must comply with social

expectation to employ relatives and friends irrespective of their qualifications (Al Harbi *et al.*, 2017). Many Saudis are even reluctant to apply for a job as the mere act indicates one's lack of *wasta* to land a job, and gives the appearance of low social status (Elamin and Tlaiss, 2016). Arguably, these poor HRM practices contribute to the skills gap, qualification mismatch and skills shortage challenges prevalent in the KSA, thereby reinforcing private organisations' reliance on foreign workers, particularly since private-sector organisations and multinational corporations are less likely to implement such discriminatory practices (Elamin and Tlaiss, 2016). The high incidence of corruption through *wasta* in the Saudi labour market was also alluded to in the interviews:

The government sets limits to the number of work visas the Ministry of Labour can grant so as to reduce the recruitment of expatriates but there is corruption in the Ministry of Labour, which obstructs the implementation of these rules. For example, one private company gets 100 visas to attract expats working for them by *wasta* (TVTC-T1).

Although this quote is in relation to the provision of foreign work visas rather than to favouritism granted to natives, it nevertheless makes the point that the practice of using one's *wasta* to sidestep the rules is pervasive in Saudi society.

In addition to the low productivity associated with Saudi workers and the lack of HRM systems, the high level of foreign workers in the private sector is also attributed to job preferences of Saudi natives and the skills mismatch between indigenous Saudis and the labour market, (see section 8.9.1.3).

#### *8.9.1.1.1 Key issues and debates in women's TVET and employment in the context of KSA*

Women in Saudi Arabia are subject to unique cultural and traditional factors where Islamic religion and Islamic law (Sharia) play crucial roles in guiding life. Such Islamic teachings reinforce gender discrimination as men are given authority and control over women. For example, women are not expected to work, but rather to stay at home and be wives, mothers,

and homemakers. Gender segregation is also prevalent in schools and the workplace, with women given fewer opportunities and freedom to study and work in all fields, since Islamic law limits the sectors permitted for women to work – women are restricted to more "feminine" areas of education and the economy, such as the humanities, arts, teaching, and healthcare (Al-Asfour *et al.*, 2017). These attitudinal and structural barriers result in a high unemployment rate for Saudi women, despite women being highly educated and motivated.

As shown in the 2016 Saudi Arabia Labour Market Report, the population of Saudi women is 13.5 million with 9.1 million of working age, yet in 2016 only 20.2% of women participated in the workforce compared to the male participation rate of 77.8% (Ministry of Labour and Social Development, 2016). These statistics indicate that the government initiatives to increase the participation rate of Saudi women in the workforce by upskilling women are facing challenges due to the lack of available jobs for women, as the research shows: "finding places for girls' work is the most difficult problem we face. The girl who graduated from the make-up field can't find places to work in" (TVTC-D8) because "there are some restrictions on employing women" (CISCO-G4).

As mentioned by several interviewees, the traditional values and discriminatory gender biases against women are contributing factors to Saudi Arabia's skills mismatch problem, because they prevent women from realising their full economic potential, resulting in wasted human capital for the country. For example, an interviewee confirmed how gender segregation in the education system hinders the ability of women to acquire necessary skills: "It depends if you are male or female especially in ICT specialisations, where most tutors are males. This means that communication between male teachers and females is hard according to gender segregation rules. Thus, females' skills are less developed and need more improvement" (CISCO-G4). Another commented on the inequality in specialisations offered for men and women, with women not given the opportunity to study numerous subjects: "For girls, the hospitality department isn't available in university" (Mövenpick-D2).

Moreover, interviewees confirmed the Saudi socio-cultural and economic barriers as respondents argued that: "Saudi women don't want to work in a gender-mixed place" (SCTH-T1); "discrimination between men and women exists in the labour market as employers prefer to hire men and do not give women a chance to work" (CISCO-G1). Moreover, Saudi society is traditionally not used to the idea of women working outside the home; thus, those with strong

conservative views consider working women as delinquent and unworthy: “For women, there are challenges because it is a gender-mixed place. People think that she is an insurgent and they are not convinced that she is qualified so they try to make her ineffective” (Mövenpick-T1).

According to Naseem and Dhruva (2017), the low rate of female participation in the Saudi labour force is due to the lack of a suitable work environment for women to be assimilated into the workplace and to reform the socio-cultural values and perception of women in Saudi society.

One consequential cultural challenge mentioned in the literature is the male guardianship system (“Mahram” in Arabic), according to which women are required to have permission from their guardian (a male family member – normally a father or husband, but in some cases a brother or even a son) to travel, study and drive (Alselaimi and Lord, 2012; Elamin and Omair, 2010). As a result, women in Saudi Arabia have reduced freedom and opportunities. However, the lift on the driving ban for women starting in June 2018 will significantly help to increase female mobility and will directly influence the participation rate of women, as it will eliminate added transportation costs to employers and individuals. The research also reflected on Saudi women’s restricted freedoms by considering the need for family members (i.e. male guardians who are in charge of making critical decisions on behalf of the women in their family) to be more flexible in allowing female family members to work in a field of their choice; for example: “parents need to be more flexible in allowing their daughters to work freely as long as it is a safe and decent job” (TGC-L2); “some families are not comfortable in letting their daughters work in manufacturing due to the mixed-gender environment” (TGC-L1). These responses demonstrate that the male guardianship system is a significant impediment to the involvement of women in the labour market.

In particular, the research highlighted that parents are reluctant to permit their daughters to work in the vocational field, which is regarded as low status with low pay, long working hours and difficult working conditions: “families do not accept women to work in vocational jobs, due to the conservative nature of society” (TGC-T1); “For example, as a conservative society, parents will not let their daughters work as beauticians which provides a low income and entails long working hours; there is a deficit of Saudi women employed in beauty salons” (TGC-T1).

Both the literature and interviews demonstrate that the norms and beliefs formed by Saudi cultural values that subordinate women have been internalised by organisations, whose structures, cultures and rules are based upon discriminatory practices that impede women's careers and advancement opportunities (Al-Asfour *et al*., 2017). As argued by some scholars, this reveals the absence of a controlling body that can support gender equality within organisations *(*Tlaiss, 2014b; Al-Asfour *et al*., 2017). A respondent in the tourism sector argued that:

The potential for women to be successful in this industry is limited in KSA because the role for women in the tourism sector is not clear. Women don't know where they can work in tourism institutions because of the rules and requirements which the country imposes. For example, the housekeeping department has a lot of jobs but they are only for men, whereas all over the world housekeeping departments depend on women. Women are also not allowed to work in the front office and reception. This needs to change. (SCTH-G2)

Smith (2006) has suggested the adoption of a recognised national authority for workplace training to overcome various barriers faced by women in the labour force, including cultural, attitudinal, qualifications and institutional barriers. Similarly, an interviewee stated: "we must change our policies and practices and provide equal job opportunities for both sexes (equalisation). For example, why is there no faculty of carpentry for both sexes? Nothing should prevent women from doing the same work as men" (SSS-T1); and another argued for the need to improve women's rights, including "jobs rights for women such as improved incentives and providing a good work environment, for example, suitable working hours for Saudi women, as well as job security, childcare and social insurance" (TGC-D2). Other recommendations provided by respondents to overcome the difficulties imposed on Saudi women include the following: "We can overcome difficulties for women by providing jobs for women where they can work from home legally, as well as, imposing systems from powerful bodies to change the culture of society" (TGC-D2); "there must be Saudisation and feminisation in specific jobs. It should be obligated for companies to employ a certain number of Saudi men and women in specific kinds of jobs such as technical and vocational jobs rather than keeping Saudisation open and general" (CITC-D2).

Moreover, the literature states that Saudi women have fewer opportunities than men to train in the workplace. This is because many workplaces, especially in the private sector, are not

traditionally designed to accommodate training for Saudi women workers due to the high costs related to gender segregation rules, which would require women to be trained separately to men and under female supervision. Thus, this hampers women's participation in the labour force (Naseem and Dhruva, 2017). The limited training opportunities open to women are also evident in interview responses when a TVTC director mentioned that "training partnerships with the private sector are for males only and not for females, because TVTC didn't receive enough applications from the private sector for strategic partnership for females" (TVTC-D4).

Saudi women's participation is, therefore, significantly affected by strict cultural traditions, values, and norms, thus limiting Saudi women's level of education and skills. This can result in lower economic and social status, as well as a high rate of women's unemployment, which causes imbalances in the indigenous workforce and the supply and demand of labour market needs.

#### 8.9.1.2 Saudi career choices (theme 2)

The Saudi Arabia Labour Market Report (2016) shows that 67% of employed Saudis work in the public sector, with 33% in private-sector employment, indicating a clear divide between public and private sector employment among Saudi natives. As mentioned above, Saudi native youth have high expectations regarding their job prospects upon graduating from college – that is to secure high-paying and secure long-term jobs in middle- to upper-managerial positions that demand little effort. Indeed, such cushy jobs have long been offered by the government to its citizens. On the other hand, jobs in the private sector are competitive, with employees expected to work hard under difficult conditions and to be paid significantly less than for public sector jobs with comparable content and skill requirement. Moreover, private-sector jobs do not offer guaranteed promotion, as is the case for government jobs (Elamin and Tlaiss, 2016). The result of the significant wage and non-wage benefit disparities between jobs in the public and private sectors has led to the overwhelming preference for Saudis to be employed by the state. Moreover, private-sector employment is stigmatised as less prestigious and more labour intensive with lower job security, adding to the distaste of Saudi youth for private sector jobs, as the following interviewee responses indicate: "There is a preference among

Saudi indigenous to work in the government sector (HRDF-D2)"; "Most young people aspire towards a career in government due to better safety and stability" (SCTH-D2). To sum up, with the wide compensation premium, together with the package of benefits (i.e insurance, housing and transportation allowances) and the security of lifetime employment enjoyed by Saudi public sector employees, it is unsurprising that Saudi natives favour public-sector work over the private sector.

Additionally, Saudi society is prejudiced against blue-collar jobs, which are viewed as dishonourable, temporary and unstable jobs; thus, many Saudis would rather remain unemployed than work in sectors such as construction, manufacturing and hospitality for fear that they may lose social status and reduce their marriage prospects (El-Katiri, 2016): "Indigenous Saudis avoid working in the fields of plumbing, carpentry, and welding" (TVTC-D2; SSS-T1); "Most Saudis avoid hardworking vocational jobs because the income is low," (STC-D3). Interviewees in the ICT sector remarked: "Indigenous Saudi technicians lack seriousness in work, they always want more, need higher income, training, insurance and consider their technical work as inferior. It is a matter of culture and society's perception towards technicians rather than education" (CITC-D2); "there is a big lack of Saudi participation in vocational works like cabling workers" (CISCO-G1). A Cisco director explained that: "Saudis are still not interested in vocational jobs… due to their limited rank, low income, and long working hours" (CISCO-D3), while a graduate stressed the dependence on expats in the sector: "most vocational workers related to ICT in KSA are expats" (CISCO-G1).

The Saudi aversion to blue-collar work was also emphasised as a significant hindrance to Saudi employment in the tourism sector: "People are not convinced that working in hospitality is a respectable job" (Mövenpick-D1); "From the viewpoint of society and families, a career in hospitality isn't suitable" (Mövenpick-G1). Moreover, considering the seasonal nature of the tourism industry, several interviewees remarked on the reluctance of Saudi youth to enter the field as most jobs are temporary: "many young people lost hope in the tourist sector as job opportunities are often temporary" (SCTH-D2).

During the boom years, oil wealth meant that the Saudi government was able to cater to natives' desire to work in the public sector. However, the recent slump in oil prices has meant that excessive government spending and subsidies are no longer sustainable (Achoui, 2009; Al-Saleh, 2009; Khashan, 2017), putting strain on the domestic social contract. In addition to

lower oil rents, demographics are adding to the challenge. Saudi Arabia has the second youngest labour force in the world with the highest levels of growth (Ministry of Labour and Social Development, 2016). With about 0.4 million Saudis entering the labour market annually the highly saturated and over-staffed government sector has reached a limit in its capacity to absorb young nationals, resulting in youth unemployment (Sthalekar, 2017).

#### 8.9.1.3 Understanding the labour market and need for skills (theme 3)

As suggested in successive Development Plans, the KSA has long suffered from a discrepancy between supply and demand of indigenous human capital in regards to both quality and quantity of labour. In addition to the cultural reasons mentioned above, the education system has partly contributed to the imbalance of skills (discussed in 8.9.2). As mentioned in the interviews, expatriates have skills better suited to the labour market: "Saudi worker skills cannot compare to the skills of foreign youth" (Al-Hokair-T2). Thus, the combined wage and skills disparity between expats and native Saudis means that private-sector employers prefer to hire foreigners: "The expatriates' skills are higher than the Saudis; however, the Saudi salary is four times bigger than that of the expatriates" (TVTC-D1). Another director summed up the cost-price imbalance in the Saudi labour market:

> [companies] prefer [to hire] expatriates [rather] than Saudi workers who produce fewer outputs but demand higher salaries (about SR4,000), unlike expatriates who are satisfied with a low salary (about SR1,000). However, Saudi workers are not satisfied with low pay and prefer to work in the administration field [where pay is higher] rather than the technical one. (CITC-D1)

The challenge for the Saudi government in shifting the economy away from its chronic dependence on government spending and expatriate labour hinges on the ability to create an autonomous and diverse private sector (Achoui, 2009; Al-Dosary and Rahman, 2005; Mellahi and Wbod, 2013) that will provide jobs for the rapidly growing young labour force. This requires the systematic enforcement of meritocratic and incentive structures within both public and private sector institutions, as well as at the individual level, to reduce the mismatch between demand and supply of skills and wages (Abed and Zhang, 2018). Although the Saudi government has for years implemented programmes aimed at nationalising the workforce and pushing native workers into the private sector, such as the Nitaqat programme which defines

target quotas of Saudi employment for each industry, the impact of these initiatives has been limited, with many industries falling short of the government's Saudi-to-foreign ratio targets (Abed and Zhang, 2018). For example, more than half of new private-sector jobs in the kingdom are formed across three industries, namely construction, manufacturing, and retail trade; however, they all maintain Saudisation ratios below 20%, while the quota of Saudis employed in the ICT industry is 37%, below the average for the entire economy (Abed and Zhang, 2018). The modest outcome of Saudisation in the ICT and tourism sectors is evident in the interviews: "Our competitors have few Saudi workers or do not have Saudisation at all. For example, in the sales field in mobile markets, we see the front lines are occupied with expatriates" (STC-D1); "Lower-level hospitality and service jobs are not at the forefront of the government's Saudisation policy, so companies in the tourism sector are able to get away with hiring foreigners over Saudis" (SCTH-D1).

The literature provides several explanations of the challenges faced by the government's Saudisation scheme, including the lack of skills and willingness of local workers to take certain job offers, the reluctance of the private sector to recruit local workers due to low productivity, preference for hiring foreigners who are better skilled and qualified, and the significant higher cost of employing Saudis (Achoui, 2009; Koyame-Marsh, 2016). Indeed, the private sector has largely resisted these policies, with many firms finding ways to cheat the system. One example is the phenomenon of hiring ghost workers, which entails hiring natives to stay at home. In this way, firms are able to increase their quotas while avoiding the low productivity of Saudi workers (Elamin and Tlaiss, 2016). The widespread use of this practice was identified in the interviews as a hindrance to Saudisation, as mentioned by a TVTC director: "Saudisation is low because of the fictional number of Saudi employees in small companies and in most vocational and administrative jobs" (TVTC-D2).

It is thus clear that the transformation of the labour market requires more than using royal decree to increase native employment. Since most current jobs in the private sector are either too skill-intensive or insufficiently skill-intensive for the native workforce, simple substitution will not work (Diwan, 2016). Structural change is needed to upgrade manual jobs, using increased capital and technological development to eliminate menial jobs, as well as downgrading many high-skill jobs to create more medium-skilled positions (Diwan, 2016). Essentially, the key to moving the country forward lies in the ability to boost the productivity of the native workforce through reforms of the education and training system (as discussed in

Section 8.9.2), such as by restructuring school curricula to coincide with market demand for skills and qualifications of labour, and introducing policies to promote scientific and technological studies in higher education (Abed and Zhang, 2018).

Overall, the government needs to consider three broad domains for policy implementation to enhance the efficiency of market resource allocation and strengthen the operation of market forces: wages and incentives; structural change, such as increased private sector activity; and education and skills. Such policies should aim to eliminate the cost-price distortions in the economy, create the infrastructure and regulatory framework to empower the private sector to expand into activities independent of government and generate its own sources of growth, and increase the human capital productivity of the native workforce (Abed and Zhang, 2018). Finally, critical to the success of this transformation will be the speed at which the prevailing culture and deeply rooted traditions and social mores respond to change (Abed and Zhang, 2018).

### 8.9.2 Key issues and debates in relation to TVET Literature

Literature has shown that skills mismatch leads to negative socio-economic impacts on individuals, organisations and economies (Allen and Van Der Velden, 2001; Mavromaras *et al.*, 2010; Sutherland, 2012). Literature also highlights the contribution of TVET in addressing the challenges caused by skills mismatch. TVET, in particular, could help enhance the productivity of individuals and organisation performance, and thus, contribute to improving the socio-economic situation of nations (Comyn and Barnaart, 2010; Mouzakitis, 2010; Nilsson, 2010; Powell and Solga, 2008).

A significant factor in the endemically high native unemployment rate in Saudi Arabia lies in the growing incompatibility between labour market needs and the outputs of the education and training system: "the outputs of the systems of general education and vocational training are not compatible with the labour market" (HRDF-D1). The KSA's pursuit of economic diversification and sustainable development will, therefore, rely on a reformed education and training system, with much needed changes to the structure and quality of the current system. Indeed, Saudi Arabia has a young and dynamic population, of which over 50% are under the age of 25 (GAStat, 2017), signifying a wealth of untapped potential knowledge, skills and expertise that the country must take advantage of to achieve the Vision 2030 goals of a

diversified, knowledge-based economy, a 7% Saudi unemployment rate (compared to a current rate of 13%), a female workforce participation rate of 30% (compared to a current rate of 20%), and a private sector that contributes 65% of GDP (compared to a current rate of 40%) (Vision 2030, 2016). Recognising this, Vision 2030 focuses on three major areas to address the country's human capital challenges: curriculum development; advancement in higher education; and building skills tailored to job market needs (Vision 2030, 2016). The discussion below depicts the education and training challenges described in the literature and interviews in relation to the six themes identified. The next section discusses three key stages in the development of workers and employees: the wider education system and its influence on Saudi culture and career choices; training provision and quality within the TVET system and how it prepares people for the labour market; and collaboration between private and public employers and the education and training institutions.

#### 8.9.2.1 The wider education system and its influence on Saudi culture and career choices (themes 4, 2 and 1)

Since the start of the Saudi government's five-year development plans in 1970, education has consistently been a top priority for the kingdom, with the government regularly dedicating one quarter of its annual budget expenditure on education and training (Pennington, 2017). Although this has resulted in considerable improvement to basic literacy rates, there is nevertheless a broad consensus that education in the country requires significantly more progress (Pennington, 2017). However, the education system has proven to be particularly difficult to reform because it is an area that has traditionally been dominated by the control and influence of Wahabi clerics. The study of Islam thus lies at the core of the curriculum, which entails the memorisation of large parts of the Quran and the instruction of Islamic tradition applied in everyday life. Even high-school literature, history and science textbooks regularly quote verses of the Quran or cover material limited to Islamic contexts (Alsharif and Laessing, 2011). Such use of rote learning and authoritarian teaching methods are seen to hinder the development of individuals with inquisitive and open minds able to navigate through sophisticated, modern economies. As a result, the Saudi education system delivers youths lacking the critical thought, innovation, creativity, and marketable skills needed for productive private-sector work (Abed and Zhang, 2018). This argument was also revealed in the interviews: "Schools must stop rote learning education and must activate the role of discussion" (Cisco-G2).

Moreover, aside from the heavy dose of religious studies, the largely traditional education received at primary and secondary school levels emphasises the humanities over science. This partiality towards these subjects in school is echoed in the specialisations Saudi youth choose to study at university, as the following implies: "Some specialisations [in universities] are saturated, such as literature and religious studies; however, there is a shortage of students taking up technical specialisations, for which graduates are in higher demand by the labour market" (TVTC-D6). As a result, Saudi Arabia has long been unable to produce the engineers, scientists, lawyers, and economists that the country needs, with youth generally lacking the education and technical skills demanded by the private sector (Alsharif and Laessing, 2011). This was also evident in the interviews, with many respondents remarking that general education is highly deficient in the teaching of technical subjects, particularly at primary and secondary school levels: "there must be technical education from primary school" (CITC-G1). Another interviewee touches on the debate of education reform, stating that any changes would require emphasizing technical education: "There must be a political decision to support a technical education system in schools for any change to take place" (CITC-D5).

The traditional and highly regimented curriculum has undoubtedly helped to mould the national identity, preserve strong cultural values and reinforce the collective solidarity felt among Saudi youth, as described in 8.8.1 (Abed and Zhang, 2018). It is not surprising that children who are spoon-fed information and who are not used to being challenged intellectually grow up lacking the desire to work hard and be tested, which is manifested by the poor work ethic and low productivity of Saudi workers. This type of education is thus likely to have underpinned Saudi nationals' preference for public-sector employment (Abed and Zhang, 2018). It could also explain why many youths leave secondary school without knowing or understanding which career to follow, since throughout school they are not taught to question or think independently. This argument was cited in numerous interviews: "most students do not know how to choose the right specialisation due to a lack of guidance in schools; thus, they tend to choose the easiest subjects irrespective of whether they are interested in them or not. Most have no desire to study the chosen specialisation" (CITC-D6); "When students finish secondary school, they tend not to know which career they wish to pursue so they choose one based on peer and family pressures" (Al-Hokair-D1). As indicated by the interviews, high university and college dropout rates in the kingdom are often attributed to youths choosing the wrong academic path: "many students leave their field of

study as it is not suitable for the person himself" (CISCO-G1). Additionally, several interviewees explained that Saudi graduates often choose not to work in their field of study, thereby representing a high instance of horizontal skills' mismatch in the country: "the problem is that graduates do not want to work in their specialisations. Instead they choose to work in managerial/administrative roles" (CITC-D5).

Indeed, a deeply integrated relationship exists between education and the economic, political and socio-cultural systems of society. Yet, similar to the kingdom's culture, the Saudi education system is a product of the past, rather than an enabler of the future. Together, these outdated social systems and mores are hampering economic progress and hindering the country's ability to generate an effective and competent workforce with skills that match the needs of the labour market. The next section explains the disparities between training provision and the expectations of the labour market.

#### 8.9.2.2 Training provision and quality and labour market skills needs (themes 3 & 5)

TVET is administered in Saudi Arabia through a number of frameworks, including vocational secondary schools, such as the Industrial Secondary Vocational Institutes, autonomous vocational training centres, such as the Colleges of Excellence, formal and informal apprenticeships, which are entrenched in the traditional crafts sector (Al-Ghafis, 2012). As outlined in Chapter Four, there are several pathways into TVET for Saudi youth: At the age of 16, students have the choice to enter technical secondary schools as an alternative track to completing general secondary education. This track consists of Industrial Secondary Vocational Institutes, which offer three-year training programmes in the fields of industry, commerce, and agriculture. Graduates from these programmes can then opt to continue their vocational training at the Colleges of Technology. Alternatively, a TVET track is available upon completion of secondary school (at the age of 18) as a substitute to higher education (university), through the various Technical Colleges, Girls' Higher Technical Institutes, and the Military Vocational Training Programmes. Students can also opt to join the National System for Joint Training (NSJT), which allows students to train with private companies through formal apprenticeships (on-the-job training) and move directly into employment following training, as well as through informal apprenticeships (Al-Ghafis, 2012).

As with the education system, TVET in the KSA has undergone multiple improvement efforts over the years, with the latest announcement for further reform occurring in 2016 as part of Vision 2030 (Vision 2030, 2016). Despite these efforts, the results of the research demonstrate that provision of TVET continues to experience numerous challenges as outputs fail to meet the needs of the working environment, particularly the private sector. Consequently, the labour market suffers from high instances of skills shortages, in terms of hard-to-fill vacancies, and skills gaps, manifested as cases of horizontal skills mismatch, in which Saudi workers work in fields unrelated to their field of study, as well as cases of vertical skills mismatch, whereby native employees are generally under-qualified and under-skilled (discussed below).

The interviews suggest that TVET graduates lack core, non-cognitive, transferable skills, including communication, organisational, teamwork, time-management, problem solving and critical thinking skills, as well as the ability to be punctual, to innovate, to be flexible and to handle stress, as the following interview responses indicate: “Students are not qualified in communication skills, presentation skills, nor technical writing skills and do not show logic in thinking (problem-solving and critical thinking)” (CISCO-D2); “Behavioural skills are a must, such as time management, communication skills, and the ability to hold meetings” (CITC-D5); “Saudi communication skills are basic; they lack patience and teamwork” (SCTH-D5). Moreover, across all sectors covered by the interviews, employers complained that training institutes produce graduates who are barely able to speak English and who lack computer literacy: “A big weakness among graduates is English language and computer skills, which are essential” (STC-L3); “Training in English language is weak, which is important in many areas of employment” (HRDF-D4); “Saudis must learn foreign languages to deal with foreigners in this field and develop their communication skills, especially English language” (Mövenpick-L1). Interviewees also mentioned the inability of graduates to demonstrate continuous self-development skills, which are essential for ensuring skills are updated with developments in the labour market, as mentioned by respondents in both the rapidly changing ICT sector as well as in the tourism sector: “the problem is that Saudi students are confined to what they learnt in university/TVET. They do not try to develop their knowledge or information… I found graduates do not have basics in knowledge or skills” (CITC-D6); “Trainees must practise self-development. They should not rely only on information taught in training” (SCTH-D2).

In terms of cognitive skills, the results clearly reveal that outputs from training centres and

institutes do not possess the technical competencies required by the labour market, with the majority of respondents claiming that TVET curricula only teach the basic fundamentals of each specialisation, and that, instead, a greater variety of concentrated specialisations is needed within each field to provide workers with a more tailor-made and specific skillset for each profession. For example: "the most important part is for the training track to include specific courses like introduction to transmission, IT, DWDM, operations etc." (STC-T1); "TVET must have specialised training tracks related to one's future career" (CITC-G1); "There aren't enough diverse specialisations in tourism. Training programmes offer it as a single major without considering that it has a lot of branches" (SCTH-D5).

The interviews show that another major limitation of training curricula is their focus on theory as opposed to real-world practical applications: "The education [in TVET centres] is only knowledge and theory without application or practice… I work in the field of networking, and I had never seen a switch or router while studying" (CISCO-G1); "Most training is theoretical, whereas tourism and hostelry depends on practising, not on theoretical training only" (Mövenpick-L1); "The students and the studies do not match our needs; in my opinion, courses rely too much on theoretical rather than practical training" (Mövenpick-D1).

A comparative analysis between the literature review and the research indicates that the factors contributing to the inadequacy and misalignment of TVET curricula can be attributed to: lack of performance-based incentives; disparity between general education and TVET; and poor collaborative efforts from industry and social partners (discussed in 8.9.2.3). These make up three of the four socio-economic factors delineated by the Boston Consulting Group as necessary to the success of TVET systems (see Chapter 2, Section 2.3.1.2) (Puckett *et al.*, 2012). In addition, a weak assessment and feedback mechanism constitutes the fifth step in the general process for the adoption of TVET systems as defined in numerous studies (see Chapter 2, Section 2.3.1.2) (Biavaschi *et al.*, 2013; Mouzakitis, 2010; Powel & Solga, 2008). Each of these factors is discussed henceforth.

According to the interviews, the main strategic objective for TVET institutes in Saudi Arabia is quantitative expansion, with centres and institutes incentivised to meet annual numbers of enrolled students and graduation rates: "TVET concentrates on quantitative goals and not qualitative ones" (MOE-D1). Since targets are not based on performance, this encourages the recruitment and graduation of as many learners as possible, without regard for quality. In

addition, teaching methods are geared towards ensuring students acquire the minimal competency needed to pass exams and assignments, and the result is that graduates from the system lack the knowledge and skills they are presumed to have attained as per the curricula. Moreover, since public funding is essentially guaranteed, institutions do not have the incentive to adapt curricula and ensure they remain relevant. As mentioned above, this leads to less reputable qualifications and reinforces the poor perception of TVET qualifications among employers. Gamar (2014) observed similar cases in the MENA region and thus argues for TVET education reforms that focus on education quality and relevance. Similarly, UNESCO (2018) has called for the change in the perception of TVET as "last choice education" through encouraging the implementation of quality assurance and control systems through accreditation/certification to international standardisation organisations (e.g. ISO Standards) or implementing quality frameworks (e.g. Common Quality Assurance Framework (CQAF)).

The poor status and low quality associated with Saudi TVET graduates means there is a clear division between general upper education (university) and TVET, with the latter stigmatised as a "dead-end" training track for those less academically inclined and who have been rejected from university studies. Thus, as the interviews show, many private-sector employers discriminate against graduates with a TVET diploma, preferring to hire those with a university degree: "employers' culture of accepting diploma workers is so bad because they prefer to appoint university graduates" (STC-D4); "I do not see any TVTC graduates in our company or any other international companies as they are of low quality. Diploma students would be unable to complete university studies. Taking vocational studies is an exile for people in general education" (CISCO-G3). These quotes clearly indicate that employment pathways for TVET graduates are automatically impaired due to the reputational disparity between the two educational paths. Indeed, given the option, Saudi students choose to go to university: "most elite students in general education go to university and the weak ones go to TVET" (MOE-D1). Thus, unless TVET in the KSA becomes a credible educational option, it will fail to attract and retain the right learners, and the self-reinforcing vicious cycle of weak trainees and ostracised graduates will prevail. Therefore, the success of the system largely depends on the ability to change the poor image of TVET in the eyes of students, their families, and employers. Although structural reforms to improve the quality and relevance of TVET is fundamental (which the Saudi government has committed to carry out in its latest Development Plan), this alone is not enough to change opinions and perceptions of TVET among stakeholders. As the interviews reveal, improving TVET's image will require targeted methods through information

provision, promotional activities, and role models that reach out to Saudi youth and their families, as well as to employers and the wider public, and which create a better reputation for TVET as a positive study choice, on a par with general education: "It is important to start public relations and advertising programmes through social communication/media in order to improve and change the bad perception of TVET" (TGC-D1). The case of TVET in the US, where policy-makers were once faced with social pushback to the social acceptance of TVET, illustrates how improved awareness can change the perception of TVET. To remedy this, US policy-makers ensured students were introduced to some form of TVET from an early age. Although TVET is an elective in the US (i.e. it is not a requirement for getting a school diploma and/or a university degree) (Zirkle and Martin, 2012), students were required to engage in at least one TVET course at some stage during their school education (Levesque *et al.*, 2008). In addition, short-term post-secondary occupational training was made available to millions of adults every year (Levesque *et al.*, 2008). The result of increased awareness about TVET among students, as well as in society in general, was a change in social perceptions and attitudes towards technical training.

Other ways to improve the attractiveness of TVET is to strengthen the links and increase mobility between general education and TVET through the promotion of flexible pathways. Indeed, many countries have taken steps to improve the articulation of vocational education with higher education in an effort to change the "second-class" image of TVET (Adams, 2007). For example, in Tunisia top vocational students can continue to university studies, while in South Africa previously terminal vocational education and training has been upgraded to qualify for higher education. In Europe, Denmark has gradually opened up higher education to technical education graduates, while Austria and Switzerland have recognised the completion of apprenticeship for entry to tertiary education. Moreover, permeability between general and vocational education has been promoted in numerous countries by providing opportunities to cross from one programme to another, such as in Germany and other Nordic countries. Similarly, Singapore's education system provides multiple interconnected pathways that allow students to transfer to and from TVET and general education, leading to the widespread acceptance of its technical pathway by parents and students (Puckett *et al.*, 2012; Adams, 2007).

The interviews also reveal that the Saudi TVET system suffers from the absence of a feedback mechanism, which was largely cited as a key reason for the curricula failing to meet the

expectations of the labour market. Respondents claimed that by not monitoring graduates in their job placements, TVET institutions are unable to ascertain the effectiveness of their training systems in preparing students for life and work: "there is no follow-up on students by TVTC since centres don't care about the quality of the outcomes from their programmes. Students receive no feedback. There is no discussion about the difficulties graduates face at work or the gaps in the training systems" (CISCO-G2); "There must be a system which measures the impact of training on graduates' performance in their jobs, which must be updated to the market needs. But unfortunately, we do not have this system" (STC-T2). As the literature demonstrates, research studies on the successful adoption of TVET systems include a scientific assessment and evaluation mechanism as a necessary stage in the process, whereby the feedback mechanism leads to continuous adaptions and adjustments according to both external (e.g. globalisation) and internal (e.g. high labour-force growth) changes in the labour market environment (Grossmann and Naanda, 2006). According to a study by UNESCO, the evaluation process should include: (i) evaluation of the existing situation, including identification of the relevance of the goals of the curriculum to market needs; (ii) identification of discrepancies and corrective objectives; (iii) implementation of reform strategy; (iv) evaluation of reform impact; (v) continuous monitoring of performance (UNESCO, 2014). Therefore, it is evident that the development of a feedback loop would provide TVET institutions in Saudi Arabia with a better understanding of areas of weakness in their curricula, and it would highlight gaps where they fail to satisfy labour market demands, hence forming an essential continuous improvement system for institutions.

#### 8.9.2.3 Cooperation between private and public employers and TVET institutions (theme 6)

One major shortcoming identified in the interviews is that training curricula are not developed alongside labour market needs, as a Cisco director explained:

> We have a problem in education itself as it is not matched with [the] labour [market]. If anyone [who] graduated as a computer engineer (or any engineer) and wanted to work according to his study, he would fail as… [the] education curriculum still deals only with basics and… students are still taught old programming language that does not match labour work requirements. (CITC-D3)

In essence, there is a fundamental disconnect between the governing bodies of the higher education training institutions in Saudi Arabia and private-sector companies, leading to weak or non-existent labour market intelligence and hence skills mismatch: "In my opinion, the governmental or academic technical training (outside companies) lacks connection with current companies [so they are unable] to employ the graduates because they don't have the right skillset" (STC-D6).

Therefore, it is vital that enterprises and social partners are systematically involved with the TVTC, the Ministry of Education, and the Ministry of Labour and Social Affairs to reconcile the worlds of education and work by providing input on requirements for TVET graduates, including specific skills and labour market demands, as well as to offer students pathways to the world of work. This would involve industry representatives collaborating with providers in the planning, design, and delivery of curricula (Puckett *et al.*, 2012). Moreover, drawing on private-sector expertise and experience would offer an effective means to upskill/reskill TVET trainers and to alter TVET systems in line with the changing needs of the labour market (UNESCO, 2016). For example, in the German dual TVET systems, social partners have a wide remit, including determining the duration and structure of TVET programmes, monitoring work-based training, and ensuring the availability of an adequate number of training opportunities (Biavaschi *et al.*, 2013). This argument was also evident in the interviews: "there must be a connection between TVTC, the Ministry of Education and the private sector to create TVET programmes and increase TVET participation within the society" (TVTC-D4).

The concept of the link between education skills output and labour market needs was also expressed in the interviews together with the concept of different geographical TVET needs, whereby interviewees emphasised the importance of training institute courses accommodating the varying skill requirements demanded in different cities throughout KSA: "Saudi Arabia is a semi-continent and every area in it has its own culture and skill needs. Strategic planning is a must. There must be a connection between the geographic context and the curricula implemented" (MoE-D1); "Training systems must consider labour market needs and the different types of skills required in each city in the KSA" (CITC-G1). To achieve such tailor-made curricula in each distinct part of the country, the cooperation between industry partners is ever more essential, along with increased autonomy of individual institutions to make decisions on curricula development, along with other issues related to the local environment.

From the above discussion, it is apparent that much progress is required to improve the education and training system in the KSA so that graduates possess the skillsets that ensure they are labour market-ready. The weaker linkage of TVET systems to market needs has also been found in other studies (Agrawal, 2013; McGuiness *et al.*, 2018; UNESCO, 2014; USAID, 2011). For instance, USAID (2011) found that in the case of Afghanistan, TVET systems had weak linkage with market needs, under-utilised online and international resources and had low women participation.

Thus, another important issue raised is the low women participation. This is important because, even if KSA might be able to successfully implement the necessary reforms and policies mentioned above, there will still be a subset of the population marginalised by the system – namely women. Indeed, women in Saudi Arabia are presented with a unique set of multifaceted challenges in relation to their place in the workforce. On the one hand, conservative values underpinned by social norms and traditions based on Saudi religion and culture emphasise that a woman's main priority is her role as the matriarchal centre of the family nucleus. Thus, these traditional values resist the notion of women in the workplace, with female employees often denied the authority and standing given to their male counterparts by conservative members of public organisations, thereby preventing the commensurate career progression that is due to them. However, the state's objective to transform the economy to a knowledge-economy necessitates increased participation of women in the labour force. As a result, to bring Saudi Arabia into a global leadership role, the government is introducing sweeping social and economic changes to bring gender parity to the nation. The next section provides an analysis of the ingrained gender discrimination in Saudi Arabian society and its implications for the role of women in the labour market.

## 8.10 Conclusion

The discussion was aimed at presenting a concise overview of the findings of this research, consolidating the insights discussed in details in the previous chapters. Thus, the chapter brought together the findings discussed in chapters Five to Seven and related these to the contextual discussion in chapter Four and the literature review in chapter Two. By considering the three sectors explored through primary interview data analysis, the chapter has highlighted the consistent themes, challenges, and problems within TVET, skills, and employment systems in KSA. The chapter also identified the key stakeholders responsible for monitoring and controlling development strategies, policies, or initiatives in KSA in order to help solve these problems and ensure positive economic, social, and cultural outcomes.

The chapter has also highlighted the identified TVET issues in the context of Saudi Arabia with respect to other studies, acknowledging, for instance the importance of addressing quality of TVET programmes to move it from a "last choice education" so that the wider perception of the contribution of TVET can be positive. Further, the chapter has also discussed the suggestions and recommendations that were obtained from the interview participants. Some of these recommendations largely echo other studies' findings, for instance, with respect to increased collaboration among TVET stakeholders. Others, however, reflect the uniqueness of the Saudi Arabian context, for instance, with respect to low women participation in employment due to a highly gendered society (Albanesi and Şahin, 2018).

From the findings obtained, this research provides additional and novel evidence of consistent and important issues, which are also evidenced by previous studies. From a broader perspective, this study provides new insights on the role of TVET in skills mismatch across organisations, roles, sectors, and groups within the context of KSA. Thus, the chapter has ended with a discussion of the significance of the research findings.

# 9 Conclusion

## 9.1 Introduction

The focus of this chapter is to summarise and discuss the findings of this study with respect to the research objectives. The chapter starts by giving an overview of the research process, followed by a discussion of the key findings of the research. The findings are discussed with respect to the research questions in order to highlight the achievement of the research objectives. In addition, these findings are compared to previous literature, reviewed in chapter two, in order to more easily identify the contributions of this study. These findings represent some key conclusions drawn from the research process that fosters understanding of the role of TVET initiatives in addressing skills mismatch. Based on the research findings, the implications for practice and contributions of this study to knowledge are outlined. Further, the limitations of the present research are discussed and recommendations for future research presented.

## 9.2 Overview of the research process

This study sought to investigate and understand the contribution of TVET systems, strategies, and policies in addressing the problems of indigenous Saudi unemployment and skills mismatch in the KSA. The underlying theme of the research is on whether KSA can address the persistent unemployment arising from the skills mismatch through the utilisation of TVET initiatives. Thus, through investigating the current and potential contributions of TVET systems, strategies and policies, the study makes recommendations and suggestions for a holistic approach to the development of TVET, which should address skills, mismatch and reduce unemployment among indigenous Saudis. The research, in investigating the role of TVET in addressing skills mismatch and unemployment, sought to answer the following research questions:

1. How is the unemployment in Saudi Arabia related to skills mismatch?
2. What are the roles of TVET systems, strategies and policies in developing skills, addressing skills mismatch?
3. What is the perspective of stakeholders in the key sectors of the KSA labour market on the current and potential role of TVET systems, strategies and policies?
4. What are the best practices and recommendations for developing TVET systems, strategies, and policies to solve problems of unemployment and skills mismatch within the socio-economic and cultural context of Saudi Arabia?

To answer these questions, a qualitative research design from a critical realist perspective was utilised to obtain contextualised knowledge from a variety of stakeholders' perspectives within three key sectors of the KSA labour market: the public sector, ICT and tourism. Semi-structured interviews were conducted with key representatives within the different organisations in the three sectors. Further, secondary data was collated from each sector and the overall employment and training system – including overviews of policies and initiatives.

Thematic analysis approach, which involved the definition and identification of key themes from the data (Braun and Clarke, 2006), was used to analyse the interviews. Further, the data has been interpreted within the context of secondary data relating to the organisations, the sectors, the labour market, and the wider socio-economic and cultural context of Saudi Arabia. This qualitative data collection and analysis approach, from a critical realist perspective, was

adopted to facilitate a deeper understanding of the structures and mechanism that enhance or inhibit the potentiality of TVET application in skills mismatch and unemployment.

The next section discusses the main findings using the research questions to organise the discussion.

## 9.3 Review of research questions

As discussed in detail in chapters Five, Six and Seven, and then consolidated in chapter Eight, the study has found some key aspects pertaining to TVET, skills mismatch and unemployment across the key labour market sectors (public sector, ICT and tourism). These findings are discussed next in respect to the research questions.

### 9.3.1 Research Question One: *How is the unemployment in Saudi Arabia related to skills mismatch?*

The findings indicate several causes of indigenous Saudi unemployment and its significant relation to skills mismatch. Firstly, there is a high dependency on expatriate employment because of the lack of required market skills among Saudis. This is particularly prevalent in the private sector where both technical skills (hard skills) and general transferrable (soft) skills of indigenous Saudis are not up to industry standards.

Secondly, indigenous Saudis prefer to work in the public sector owing to the perceived higher status, income, job security, and relaxed working hours within that sector. The perceived social status of public sector jobs arises from the better working conditions and resultant opportunities. It is, thus, found that contrary to the private sector, the public sector has witnessed high rate or even saturation of Saudisation. This saturation is to the extent that many Saudis remain unemployed awaiting a public-sector job. This situation in Saudi Arabia is unique when compared to other (especially developing) countries where the public sector is a less preferred employment sector (Lewis and Frank, 2002; Lyons et al., 2006) but consistent with the wider motivation for job security (Wright, 2001). On the other hand, employers prefer to recruit expats owing to lower wage demands, higher skills, more productivity, stronger commitment, and a better grasp of control as opposed to indigenous workers.

Thirdly, indigenous Saudis tend to avoid working in low-status and low-income jobs, particularly manual or blue-collar technical and vocational roles, and results indicate that, when they do participate in such jobs, they tend to switch into more prestigious positions and sectors. There is, therefore, a social and cultural construct regarding the social status of jobs. This employment instability leads to high turnover costs, a waste of knowledge acquired on

the job and, ultimately, a reduced return on investment. Consequently, employers are forced to depend on expatriate workers, which leads to an increase in the Saudi unemployment rate.

Fourthly, with respect to TVET-related jobs, which mostly fall into the lower status jobs, the negative social and cultural perceptions thus, hinder most Saudis from taking up employment in these areas. Further, there exists limited job opportunities for females not only arising from the social status of the TVET-related jobs, but from the broader engraved cultural barriers that segregate women. These barriers contribute to high rate of Saudi female unemployment.

Further, the study revealed a major problem with fictional employment in relation to Saudisation policies, whereby employers provide false employment statistics to meet Saudi employment regulations and avoid penalties. This plays a major role in unsuccessful employment implementation and highlights a need for stricter monitoring and upkeep of employment policies and initiatives.

### 9.3.2 Research Question Two: *What are the roles of TVET systems, strategies and policies in developing skills and addressing skills mismatch?*

TVET was recognised by participants from the three sectors to have a vital role in equipping indigenous Saudis with the skills necessary for employment. Appreciatively, each of the sectors has an important place within the Vision 2030 of diversifying the Saudi economy, and hence there is a labour market demand for employees with the suitable technical and vocational skills to fill positions within these sectors. As well as providing the technical training for employees in the government, ICT and tourism sectors, the TVET system also has a role to play in providing informed career advice suitable to individual students, and in making careers within the three sectors attractive to indigenous Saudis, for example, by countering the social stigma that is often attached to jobs in these sectors and by helping break down the cultural barriers that hinder women from pursuing technical employment paths. This raises important implications for the need to develop TVET in order to achieve its full potential.

However, the findings indicate that current TVET systems are insufficient in developing indigenous Saudis' skills and meeting labour market needs. Employers have generally low expectations of new TVET graduates being equipped for employment. The TVET institutions, on their part, find it challenging to produce skilful graduates within two years, due in part to

the failure of the general education system, particularly in the early school years, to properly implant basic non-cognitive skills that are vital to developing transferable skills in the workplace. A lack of collaboration between the TVET and general education systems prevents consistently successful achievement of the educational policy target of 38% of high-school graduates proceeding to TVET institutions.

The TVET system also suffers from a lack of qualified trainers, outdated training tools and curricula, limited capacity, limited specialisations, insufficient practical training, poor quality control of teaching and outputs, and a lack of monitoring of and feedback from graduates once they are at the workplace. Currently, there are also no adequate means for thoroughly assessing how successfully the TVET system is performing in its role.

Some of these challenges reflect the wider constraints faced by TVET initiatives around the world. For instance, the poor quality of TVET education has been widely observed (Gamar, 2014; UNESCO, 2018) including the weaker linkage of TVET systems to market needs has been highlighted by other studies (Agrawal, 2013; McGuiness et al., 2018; UNESCO, 2014; USAID, 2011). However, the social-cultural barriers and perceptions, e.g. with respect to women and certain job types is not applicable elsewhere.

### 9.3.3 Research Question Three: *What are the perspective of stakeholders in the key sectors of the KSA labour market on the current and potential role of TVET systems, strategies and policies?*

The study has found that stakeholders within the key labour market of ICT, tourism, and government have a positive perception regarding the potential for TVET initiatives to address the labour market needs. However, the current state of the TVET is perceived as not meeting the wider skills requirements within the sectors. Contrary, the internally implemented TVET systems in organisations within these sectors were highlighted to have a more direct impact on the market-relevant skills.

With respect to the ICT sector, the TVET programmes for the sector were perceived as ineffective in providing skilled employees who could meet labour market demands. The main causes attributed to the ICT curricula implemented in training institutes being too broad and thus, not offering the required skills specialisations in a rapidly changing sector. The limited

skills specialisation was also highlighted in the tourism sector. In addition, the TVET practices related to the tourism sector are constrained by the low capacity of training institutions and inadequate provision of practical training in tourism.

Given the current limitations of the TVET systems and strategies, stakeholders highlighted the need for increased strategic partnership and co-operations between the labour market and the TVET institutions. In addition, each stakeholder's role in contributing to the success of TVET programmes was emphasised. In this respect, government is seen as responsible for formulating enabling policies and legislation that can help to overcome barriers and facilitate TVET development plans whilst the TVET institutions should develop training curricula that remains labour market relevant. TVET institutions would also have to increase their capacity and improve education quality. Further, the role of employers would have to go beyond the provision of employment opportunities for trainees to the collaboration and partnership with TVET institutions in order to address the labour market skills gap.

The stakeholders are positive regarding the future development of TVET in Saudi provided each stakeholder group plays its part to address the structural, including the socio-cultural, barriers for TVET development.

### 9.3.4 Research Question Four: *What are the best practices and recommendations for developing TVET systems, strategies and policies to solve problems of unemployment and skills mismatch within the socio-economic and cultural context of Saudi Arabia?*

The findings from this research indicate the importance of developing the TVET system so that it is aligned with labour market requirements. To achieve this, it is recommended that there is cooperation between and strategic partnerships with various stakeholders, and that there is shared responsibility for solving the socio-economic and cultural issues of consistent unemployment and skills mismatch. Both government and private organisations should focus on studying and understanding the labour market and the skills need in order that effective strategies and policies for the TVET system are enabled. A priority is to unify efforts between responsible stakeholders so that coherent and desired goals can be met. For best practice to be implemented, effective monitoring is required, so that outputs can be measured and information-based evidence used to design, develop, and improve TVET.

The Saudi government is responsible for developing clear policies and legislation to help overcome barriers and encourage TVET improvements. The establishment of normative and moral leadership bodies who can help reduce negative practices and assess the progress of plans and policies would be beneficial. The government can stimulate the development and improvement of TVET by offering incentives to both private organisations and students that will increase the training and employment of indigenous Saudis. Such incentives should be integrated with current Saudisation policies. The government also is best placed to take a 'moral' lead in changing negative cultural perceptions of TVET, and in removing the cultural barriers that have led to low female participation in the labour market. This transformation would have to be instituted at the macro level through policy changes.

TVET institutions should reform their education and training methods through strong engagement with private companies and the labour market in general, by monitoring and evaluating their procedures and outcomes for sustainable employment. Further, TVET institutions should enhance the quality of their education provisions, through for instance, accreditation programmes. With the objective of providing ready outputs to enter the workforce, TVET institutions should market or sensitise the stakeholders regarding the role of TVET in the wider economy, and thus, alter the negative social perceptions of TVET outcomes.

## 9.4 Contributions of the research

The contributions of this research are fourfold: substantive, methodological, theoretical, and practical. Although there is some overlap between the four areas, each is discussed separately below.

### 9.4.1 Contribution to literature

This study in investigating the role of TVET in addressing skills mismatch and unemployment in Saudi Arabia makes a contribution to the extant literature that debates the influence of skills mismatch on unemployment (Achoui, 2009; Allais, 2012; Allen and De Weert, 2007; Bosch and Charest 2008; Brockmann et al., 2008; Fuller and Unwin, 2011; Green, 2011; Levels et al., 2014; Winch and Hyland, 2007). The study also contributes to the literature that discusses the role of TVET in unemployment reduction (Berkhout et al., 2012; Richardson, 2007; Stoevska, 2017; World Economic Forum, 2014). In this respect, this study contributes in showing that effective TVET programmes possess the potential to address issues of skills mismatch and unemployment. Critically however the research shows that for this potential to be realised the underlying factors that impact or hinder the effectiveness of TVET, such as social cultural barriers, must be addressed.

Importantly, this study makes a contribution in using the Saudi Arabian context. In using the Saudi Arabia context, this research contributes to the gap that exists in the literature which has focussed on developed countries (Adams, 2010; Baartman and de Bruijn, 2011; Levesque et al., 2008; McGowan and Andrews, 2017) with limited studies on the GCC countries (Crockett, 2014; Khan et al., 2017; Wheeler, 2017) and Saudi Arabia (see DeBoer and Ater Kranov, 2017) in particular. The study highlights that in undertaking research in TVET, there is need to take into account the wider socio-economic and cultural context in order to identify the underlying generative mechanisms (Bhaskar, 1978) that hinder or foster a phenomenon or process.

This study reveals the perception of key stakeholders in the labour market of KSA on the link between TVET and skills mismatch. Uncovering the perceptions of these key stakeholders is central to the future development and utilisation of TVET to address the skills gap between the labour market demand and supply. This is important as several studies have shown that a lack of understanding of TVET programmes and coordinated partnerships between actors in the

labour market contributes to failures of TVET programmes in countries (Brockmann et al., 2008; Chakroun et al., 2015; Green et al., 2017; Levesque et al., 2008; Powel and Solga, 2008; Terada, 2012; Zirkle and Martin, 2012). As such, the future development and success of TVET programmes in any country requires stakeholders' engagement. An understanding of the stakeholders' perspective becomes imperative to how change and development could be made in addressing the skills mismatch and unemployment through utilising TVET strategies.

This study has also revealed that the lack of diverse specialisation in TVET programmes hinders its potential contribution to addressing skills mismatch and unemployment. The study revealed that TVET programmes offered by TVET training providers were not sufficiently diversified, lacking a variety of specialisation. This is consistent with findings from studies in other countries. For instance, Goel and Vijay (2007) highlighted this in the context of India, Sultana and Watts (2008) in the Middle East and North Africa, and Brodmann et al. (2012) in the West Bank and Gaza.

This study also contributes to the growing literature on gender and employment (Albanesi and Sahin, 2018; Baussola et al., 2015; Gimenez-Nadal and Molina, 2014; Van der Meer, 2014), by highlighting the high level of female unemployment in the KSA and the socio-cultural factors/challenges that underpin this high gender imbalance such as the prevailing social and cultural norms regarding the status of particular jobs (e.g. manual or blue collar technical and vocational roles). The potential role of TVET in reducing female unemployment was highlighted. For example, the study found that strong links between training and education authorities and corporations helped to develop skillsets demanded by the labour market. However, the overall contribution is constrained by several factors. For instance, as outlined in section 5.3, the study revealed that the Saudi education system provides less variety of specialisations for women and prevents them from studying certain fields, such as engineering technology, architecture, political science, or petroleum-related disciplines.

### 9.4.2 Methodological contribution

Besides the contribution to extant literature, this research also makes methodological contributions. Firstly, the methodological contribution lies in the application of a critical realism framework to a phenomenon in a developing country perspective. This was appropriate in order to expose some underlying 'generative mechanisms' (Bhaskar, 1978) that underpin skills mismatch and unemployment in KSA. Therefore, the methodological

contribution is the advancement of the theoretical lens offered by the critical realism perspective to the exposition of the often-hidden generative mechanisms such as the societal and cultural barriers that accentuate skills mismatch and unemployment in developing countries?. Using the theoretical lens of critical realism, in this case, helped to highlight the particularities of the Saudi's socio-economic context in order to reveal the underlying mechanisms that propagate unemployment. Thus, in undertaking research from a critical realist perspective, researchers ought to obtain a good contextual understanding of the phenomenon in order to expose the deep structures and mechanism that consolidate or underlie the phenomenon.

Further, the methodological contribution lies in the application of a qualitative research approach to undertaking research in TVET, employment and skills. Most studies have adopted a quantitative deductive approach in seeking for some causal relationships (Achoui, 2009; Koyame-Marsh, 2016; Madhi and Barrientos, 2003). However, this research advances that understanding the generative mechanisms that underlie a phenomenon requires a deeper contextual understanding of a phenomenon as these 'generative mechanisms' are often hidden such that their identification is more difficult within a quantitative approach. For instance, some social constructs about gender are deeply rooted in many societies and reflected in ideas that certain types of education, career choices, work and social positions are connected with a particular gender (Alvesson and Billing, 2009; Binns, 2010). In this respect, Alvesson and Billing (2009, p. 24), for example, argue that "most work is not gender neutral, but is attributed some form of masculinity or femininity, either vaguely or in the shape of more specific ideas about what the work involves and the kind of qualities typically possessed by a 'man' or a 'woman'".

The study, in applying a qualitative approach, advances the application of thematic analysis in TVET and skills research. Thematic analysis, as used in this research provides a useful "method for identifying, analysing and reporting patterns (themes) within data" (Braun & Clarke, 2006, p. 79) and thus suitable to this research. This research method was applied to 81 research participants in order to obtain sufficient narratives possible to make some generalisations. As such, the study offers 'reader based' opportunities for generalisability of findings given the exposition of the underlying generative mechanisms at play. Thus, this study contributes in showing that applying thematic analysis could be used to identify or reveal some hidden structures and mechanisms that constraint phenomenon, in this case TVET and unemployment. The identified structures and mechanisms are potentially generalisable to research on TVET internationally, whilst considering the context of the different countries.

### 9.4.3 Theoretical contribution

The key theoretical contribution of this thesis is its use of a holistic approach to understanding TVET in Saudi Arabia. Effective research that seeks not only to understand TVET and its relationship to employment and skills but also to inform policy requires the adoption of a holistic perspective. This involves studying TVET within the broad context of policy, society, economy and culture, since TVET both contributes to its wider context (for example, by effecting socio-economic change) and is shaped by that context (for example, by cultural norms). Therefore, this research has considered TVET in relation to Saudi government economic, employment and education policy, the Saudi society and culture, the wider education system, the public and private sectors, and the broader Saudi labour market. This resulted in the identification of the underlying factors and contributes to a holistic understanding of TVET in Saudi Arabia.

Further, the theoretical contribution also lies in the promulgation of the potential economic contribution of TVET to employment creation through skills development. TVET programmes essentially teach new skills or upgrade existing skills which raise trainees' productive capacity and hence meet the required manpower needs of the economy (Tsang, 1997). TVET perceived as a contributor to the skills requirements and also productivity of the labour force, thus, has a more direct relationship with economic growth (Mouzakitis, 2010; Nilsson, 2010).

The study contributes in showing that there exists skills gap within the labour market which could be addressed by effective TVET programmes that promote sufficient skills specialization. As such, the study enhances the understanding that there is a relationship between labour specialization and skills gap and also a relationship between skills and productivity. Productivity then contributes to economic growth (Fitzsimons, 2015). In addition, the study highlights that the contribution of the TVET programmes to skills gap requires identification of the labour market skills requirements. This identification of skills gap requires strong engagement of TVET training providers and employment providers. The role of increased skills specialization in helping reducing labour market skills gaps is consistent with human capital theory and the wider traditional economic theories (Shah and Burke, 2005; Tsang, 1997) which postulate the relationship between human capital and economic growth. This has policy implications (see below).

Further, this research has highlighted the existence of social and cultural constructs which contribute to unemployment, particularly to female unemployment. This contributes to gender theory and also social constructionism theory that postulate the existence of socially constructed interpretations of gender and job roles. The social constructs can be so deeply ingrained within societies that they become 'hidden' continuing to promote social injustice and female segregation. Sattinger (2012), for instance, observed that inequality is one of the main factors that directly contributed to skill mismatch. In this study, it was found that occupational gender segregation has been historically linked to the impact of the socio-cultural context and norms on education in general. This is the case particularly in this study considering that Saudi Arabia is a country with persistent levels of high gender inequality (Bassi et al., 2016; Human Rights Watch, 2016). This should also have policy implications.

### 9.4.4 Practical contribution

This main practical contribution of this thesis is its provision of a research basis that can inform TVET strategy and policy. It has been intended that the findings and analysis can be applied to policy, and can help shape how those responsible for TVET policy (for example, the government, the public and private sectors, TVET trainers and centres) determine and implement reforms to TVET, particularly with a view to improving indigenous Saudi skills and reducing Saudi unemployment.

A summary of the key practical contributions arising from each theme is discussed next

#### 9.4.4.1 Saudi Career choice and awareness and Saudi cultural barriers:

The study has highlighted the Saudi indigenous career preferences that reflect their level of participation in the labour market in certain occupations, and additionally, the level of awareness Saudi indigenous have regarding different career choices and how that influences their level of labour market participation and skills acquired. This is in relation to economic and socio-cultural factors, such as, financial incentives, public verses private sector, expatriate employment, geographical differences and gender discrimination. Thus, policy makers should consider these factors to inform policy and strategy reforms to TVET, particularly with a view to improving indigenous Saudi skills and reducing Saudi unemployment.

With respect to cultural barriers, these consists of Saudi traditions, values and beliefs that influence the Saudi indigenous' perception toward TVET employment and acquiring skills, and its effect on Saudi participation in the Saudi labour market. For example, Saudi work ethics and motivation and gender segregation. With particular reference to gender segregation, policies that enhance women's skills development and employment could be developed. TVET offers a valuable source for skills development or upgrade among women segregated/constrained by the mainstream education system. Changing cultural perceptions, however, takes time but this could be promoted with government support.

#### 9.4.4.2 Understanding the labour market and need for skills and wider education system and employment pathways

The study contributes to understanding of the supply and demand of skills qualitatively. Assessing Saudi skills gap and mismatch among graduates, employees and genders through identifying the needed and required skills for employment in general and in particular TVET has important practical implications.

With respect to wider education system and employment pathways, the study identifies where the education system lacks in preparing students for technical and vocational fields. The limited scope of the education system links directly to unclear employment pathways and can consequently end with students lacking the basic skills required for employment. Unequal qualifications between TVET and higher education reflects the narrow range of the education system and employment pathways. As such, policy implication would involve strengthening of the TVET programmes through, for instance, teaching job related skills and behaviours.

#### 9.4.4.3 TVET training provision and quality and cooperation between TVET institutions and organisations

This research highlights the impact of the existing TVET system on Saudi indigenous skills and employment and has revealed the negative outcomes due to some weakness and limitations within the TVET system that should be considered for future developments. Also, the study reveals the importance of cooperation and collaboration practices between TVET institutions and employers and its effect on Saudi indigenous skills and employment development. The practical and policy implications, not only in the Saudi Arabian context but other contexts as well, would necessitate increased integration and coordination between TVET institutions and

employers. TVET institutions would obtain a better understanding of the labour market and skills demands through this coordination with employers.

In summary, understanding these aspects has practical implications. Therefore, the study contributes in showing, for instance, how Saudi indigenous awareness and perception towards TVET can influence their TVET career choice, including deciding factors such as financial incentives, preference to work in the public sector and how Saudi cultural barriers influence TVET skills and employment. These factors are exacerbated by the weak TVET training provision and quality, along with the wider education system and employment pathways that do not seem to stress the importance of understanding the labour market and its needs for skills, which requires an increased level of cooperation between TVET institutions and organisations.

## 9.5 Limitations of the research

Previous studies on TVET in KSA have focused on specific aspects of skills and training, and there is generally a lack of holistic studies on TVET, skills, and employment in the Saudi context. This research has, therefore, attempted to address a significant gap in the current literature. There are, nevertheless, some possible limitations of the present research.

The data in this study was obtained from only three sectors in KSA: the public, ICT and tourism sectors. The first was selected as a key current employer within the KSA, and the other two were selected as important areas of future economic growth, particularly within the context of government policy to diversify the Saudi economy and move away from over reliance on the petroleum sector. However, as the largest sector within Saudi economy, the oil industry will almost certainly remain a key part of the Saudi economy and society for the foreseeable future. Ideally, research would have included this sector; however, difficulties in accessing and conducting interviews with stakeholders within this sector meant that this was not practical. Hence, the findings and analysis in this study may not be generalisable across the entire Saudi economy, despite some observed similarities across the three sectors investigated.

Another potential limitation is that the interview methods relied on self-reporting, which may lead to bias (for example, towards the participant's organisation, or against TVET). Additionally, interviewees were selected internally by HR managers, which raise issues of selection bias. Thus, there is possibility that these chosen interviewees gave limited perspective. The research has attempted to overcome this problem by interviewing people in different roles and positions within the organisations' hierarchy and acknowledged the potential for bias where appropriate.

A third possible limitation of this study is that it focused on people in employment, and hence is likely to present an industry perspective. It does not include the perspectives of students, parents of students, or teachers and trainers within the wider education system, since to include those was beyond the practical scope of the research. Nevertheless, a fully informed understanding of TVET would require further research on its relationship to the general education system in KSA.

Finally, the translation of interviews into English has the potential to result in some loss of meaning and also make interpretation therefore difficult. This has been addressed by going back and forth through the interview recordings to ensure that interviews have been transcribed and translated accurately. This also enhanced the quality and validity of the research process.

## 9.6 Recommendations for future research

Since the subject of this thesis is still an underdeveloped area of research, it is recommended that other data collection approaches, e.g. quantitative methods, are performed in future work. This will deepen the understanding of TVET in KSA and better inform policy. As well as extending the research in the areas covered in this thesis, such as which looking further into the role of gender and geographical differences in TVET, it is also recommended (in line with the limitations of this research, outlined above) that data is collected from other sectors of the Saudi economy. Other sectors such as the oil industry not covered in this research, could offer valuable insight on the role of TVET.

In addition, future research could explore how well the TVET and general education systems are integrated. In particular, focus could be directed at assessing whether reforms to the latter may improve the former. In this respect, obtaining the perspectives of teachers and insights from young people will help to identify possible weaknesses in the general education system and areas for improvement. This would be within an important consideration of the wider aim of improving indigenous skills, reducing Saudi unemployment and the reliance on expatriate workers, and diversifying the economy.

Future research could also consider TVET in Saudi Arabia in a larger international context. Thus, comparative studies of the Saudi TVET system and those of other countries and regions (particularly the GCC region) would further inform the understanding of TVET, employment and skills in KSA. Alongside this, research could explore the extent to which the methodological and theoretical approaches adopted in this thesis are applicable beyond Saudi Arabia. Although it was not an objective of the current study to produce findings generalisable beyond KSA, it is envisaged that the analytical method and identified key issues will contribute more generally to international TVET research. Nonetheless, the contextual factors would have to be considered in future research, which increases the application of the key findings of this research.

Finally, longitudinal research would enhance the understanding of TVET, employment, and skills in KSA. As the Saudi government's long-term strategy is to diversify the economy and increase Saudisation, Vision 2030 will benefit from continuous strategic monitoring and from evidence-based planning and implementation. A longitudinal study of TVET, combining both quantitative and qualitative analysis of the TVET system and its relationship to unemployment

and skills mismatch, would more likely produce rich data and analysis to inform the Vision 2030 strategy.

## 9.7 Summary

This chapter has concluded on the findings in this study and, based on these findings, has attempted to suggest some implications for the potential contribution of TVET in skills mismatch and unemployment. The study has highlighted the significance of skills mismatch in exacerbating unemployment among the indigenous Saudis. Further, the study has found that the contribution of TVET in addressing the skills mismatch has been affected by aspects related to: cultural barriers, career choices and awareness, cooperation between TVET institutions and employers, understanding the labour market and need for skills, wider education systems and employment pathways, and training provision and quality. Understanding these aspects in respect of the wider historical, social, economic, and political context of Saudi Arabia is important. The chapter also outlined the overall contribution the research makes to the extant TVET literature as well as suggesting some potential future research direction.

**References and Bibliography**

## References


Abed, G.T., and Zhang, T. (2018). Research Note Saudi Arabia: Diversification Requires Deep and Sustained Structural Reforms. Institute of International Finance. Available at: <https://www.iif.com/publication/country-report/saudi-arabia-diversification-requires-deep-and-sustained-structural> [Accessed 30 March 2018]

Abdel-Rahman, A. M. M. (2006) The determinants of foreign worker remittances in the Kingdom of Saudi Arabia. Journal of King Saud University.

Achoui, M. M. (2009) Human resource development in Gulf countries: an analysis of the trends and challenges facing Saudi Arabia. Human Resource Development International, 12(1), pp.35-46.

Ackermann-Piek, D., Perry, A., and Wiederhold, S. (2014) How can skill mismatch be measured? New approaches with PIACC. *methods, data, analyses*, 8(2), pp. 137-174. Available at: <http://www.ku.de/fileadmin/160114/Perry_Wiederhold_Ackermann-Piek_2014_MDA_8_2_.pdf> [Accessed 11 December 2017].

Ackroyd, S. and Fleetwood, S. (2001) *Realist perspectives on management and organizations*, London: Routledge.

Adams, A. (2007) The role of youth skills development in the transition of work: A global review. Available at: <http://web.worldbank.org/archive/website01404/WEB/IMAGES/ADAMSROL.PDF> [Accessed 11 December 2017].

Adams, A. V. (2010) The Mubarak Kohl Initiative – Dual System in Egypt. An assessment of its impact on the school to work transition. City: Cairo, Egypt, Publish house: Deutsche Gesellschaft für. Internationale Zusammenarbeit (GIZ) GmbH.

Adamuti-Trache, M., and Sweet, R. (2008) Vocational training choices of women: public and private colleges. Gender and Education, 20(2), pp. 167-182.

Agrawal, T. (2013) Vocational education and training programs (VET): An Asian perspective. Asia-Pacific Journal of Cooperative Education, 14(1), pp.15-26.

Ahmed, K., Bhutto, N.A. and Kalhoro, M.R. (2018) Decomposing the links between oil price shocks and macroeconomic indicators: Evidence from SAARC region. Resources Policy.

Alamr, S. (2013) Colleges of Excellence. Expanding and Improving Technical and Vocational Education and Training in the Kingdom of Saudi Arabia – An Approach to PPP in TVET Sector.

Al-Ahmadi, H. (2011) Challenges facing women leaders in Saudi Arabia. Human Resource Development International, 14(2), pp. 149-166.

Al-Ali, F. M. (1997) Nationalizing the Work Force of Saudi Arabia: The Role of the Chambers of Commerce and Industry Training Programs in the Private Sector. Doctoral thesis. Florida Atlantic University.

Al Ali, J. (2008) Emiratisation: Drawing UAE Nationals into their Surging Economy, International Journal of Sociology and Social Policy 28(9/10), pp.365-379.

A -Ansari, I. (2008) From education to the work and training and hiring of youth. Arabia Institute for Studies, Beirut.

Al Arabiya English (2016) Saudi Arabia's Vision 2030. Available at: <https://english.alarabiya.net/en/perspective/features/2016/04/26/Full-text-of-Saudi-Arabia-s-Vision-2030.html> [Accessed 13 December 2017].

Al-Asfour, A. and Khan, S. (2014) Workforce localization in the Kingdom of Saudi Arabia: Issues and Challenges, Human Resource Development International, 17(2), pp. 243-353.

Al-Asfour, A., Tlaiss, H.A., Khan, S.A. and Rajasekar, J., (2017) Saudi women's work challenges and barriers to career advancement. Career Development International, 22(2), pp.184-199.

Al-bakr, F., et al. (2017) Empowered but not Equal: Challenging the Traditional Gender Roles as Seen by University Students in Saudi Arabia. In FIRE: Forum for International Research in Education (Vol. 4, No. 1, p. 3).

Albanesi, S. and Şahin, A. (2018). The gender unemployment gap. *Review of Economic Dynamics*.

Albugami, S.S. and Ahmed, V., (2015) Towards successful implementation of ICT in Saudi schools (literature review).

Al-Dosary, A. S., Rahman, S. M., and Aina, Y. A. (2006) A communicative planning approach to combat graduate unemployment in Saudi Arabia. Human Resource Development International, 9(3), pp.397-414.

Al-Dosary, A. S., and Rahman, S. M. (2005) Saudization (localization)–A critical review. Human Resource Development International, 8(4), pp.495-502.

Al-Filali, I., Gallarotti, G., and Tayyeb, O. (2012) Smart development: The quest for a knowledge economy in Saudi Arabia. Available at: <http://faculty.kfupm.edu.sa/FINEC/ramadyma/docs/Scholars_Review.pdf> [Accessed 24 September 2016].

Al-Ghafis, A. (2012) Technical and vocational training in Saudi Arabia [Online]. Building Skills for Work and Life in Saudi Arabia UNESCO. Available at: <http://www.unesco.org/fileadmin/MULTIMEDIA/HQ/ED/pdf/China-Final.pdf> [Accessed 15 January 2018].

Alenzi, A.M. (2017) Unemployment In Saudi Arabia: Does Saudization Reduce Unemployment?.

Allen, J. and De Weert, E. (2007) What do educational mismatches tell us about skill mismatches? A cross-country analysis. European Journal of Education, 42(1), pp.59-73.

Alhamad, H.S. (2014) The Labor Market in Saudi Arabia: Foreign Workers, Unemployment, and Minimum Wage. Inquiries Journal, 6(06).
Alharbi, M. (2012) Vocational Training in Saudi Arabia. ANZAM

Al. Harbi, S., Thursfield, D., and Bright, D. (2017) Culture, Wasta and perceptions of performance appraisal in Saudi Arabia, The International Journal of Human Resource Management, 28(19), pp.2792-2810.

Alhejji, H., Ng, E., Garavan, T. and Carbery, R. (2016) The Impact of Formal and Informal Distance on Gender Equality Approaches: The Case of a British MNC in Saudi Arabia. Thunderbird International Business Review, 60(2), pp.147-159.

Al Hokair (2017a) Facts and Figures. Available at: <https://www.alhokair.com/About/Facts> [Accessed 25 October 2017].

Al Hokair (2017b) Ataa Center. Available at: <https://www.alhokair.com/AtaaCenter> [Accessed 27 November 2017].

Al Hokair (2017c) Under AlHokair Group's Management, "Accor Hotels" Appoint the 1st Female Saudi Hotel Manager. Available at: <https://www.alhokair.com/MediaArticle?id=6833> [Accessed 10 November 2017].

Al Hokair (2017d) Run by Female Saudi Chefs AlHokair Group Launches "Majlisuna" Restaurant. Available at: < https://www.alhokair.com/Hotels/pressroom/NewsA18 > [Accessed 10 November 2017].

Al-Humaid, M. I. A. (2003) The factors affecting the process of Saudization in the private sector in the Kingdom of Saudi Arabia: a case study of Riyadh City. Doctoral thesis. University of Exeter.

Abdul Latif Jameel (ALJ) (2016) Bab Rizq Jameel helped generate over 81,000 job opportunities in Saudi Arabia in 2015. Available at: <http://www.alj.com/en/news/article/2016/04/bab-rizq-jameel-helped-generate-over-81000-job> [Accessed 12 November 2017].

Al-khatani, N.S. and Khan, A.N., (2013) Human resource development practices in telecom sector in Saudi Arabia: an empirical presentation. *World applied science journal*, *3*, pp.1567-1578.

Allais, S. (2012) Will skills save us? Rethinking the relationships between vocational education, skills development policies, and social policy in South Africa. International Journal of Educational Development, 32(5), pp.632-642.

Allen, J., and Van der Velden, R. (2001) Educational mismatches versus skill mismatches: effects on wages, job satisfaction, and on-the-job search. Oxford economic papers, 53(3), pp. 434-452.

Al-Qassimi, K.M. (1988) Foreign manpower and its negative impact on countries of the gulf cooperative council. Arab Culture Publisher, Al-Shariga, UAE.

Al-Saleh, Y. (2009) Renewable energy scenarios for major oil-producing nations: the case of Saudi Arabia. Futures, 41(9), pp.650-662.

Alsarhani, K. (2010) Saudiization: HRD strategy or replacement policy. In Advanced Management Science (ICAMS), 2010 IEEE International Conference on (Vol. 3, pp. 333-338). IEEE.

Al-Sayari, H. (2007) Economic and Structural Policy Reforms in Saudi Arabia. BIS Review Available at: <https://www.bis.org/review/r071219b.pdf> [Accessed 15 December 2017].

Alselaimi, R. and Lord, L. (2012) "Female Participation in the Saudi Workforce: a Saudi Perspective of Key Barriers", in Pillai, R., Ozbilgin, M., Harley, B. and Hartel, C. (Eds), Australian and New Zealand Academy of Management Conference (ANZAM), Perth, December 5-7.

Al-Asfour, A., et al. (2017) Saudi women's work challenges and barriers to career advancement. Career Development International, 22(2), pp.184-199.

Alsharif, A. Laessing, U. (2011) Special report: In Saudi Arabia a clamor for education. Reuters. Available at: <https://www.reuters.com/article/us-saudi-education/special-report-in-saudi-arabia-a-clamor-for-education-idUSTRE7190MJ20110210> [Accessed 6 December 2014].

Alsheikh, H.M. (2015) Current progress in the nationalisation programmes in Saudi Arabia.

Al-Asmari, M.G.H. (2008) Saudi labor force: Challenges and ambitions. Journal of King Abdulaziz University: Arts & Humanities, 16(2), pp.19–59.

A. Alzamil, Z. (2014) Quality improvement of technical education in Saudi Arabia: self-evaluation perspective. Quality Assurance in Education, 22(2), pp.125-144.

Alvesson, M., & Billing, Y. D. (2009). *Understanding gender and organizations*. Sage.

Alzu'be, A. F. M. (2012). The Quality of Saudi Graduates and the Needs of Saudi Labor Market. Research on Humanities and Social Sciences, 2(9), pp.140-148.

American Centre for Democracy (2011) Saudi Arabia: Coping With Indigenous Unemployment And The Nitaqat Program. Available at: <http://acdemocracy.org/saudi-arabia-coping-with-indigenous-unemployment-and-the-nitaqat-program/> [Accessed 27 December 2013].

American Institutes for Research. 2013. How Career and Technical Education Can Help Students Be College and Career Ready: A Primer. Available online at: <http://www.aypf.org/wp-content/uploads/2013/04/CCRS-CTE-Primer-2013.pdf> [Accessed 21 May 2018]

Ananiadou, K. and Claro, M., 2009. 21st century skills and competences for new millennium learners in OECD countries.

Andersson, R. (2000) The financing of vocational education and training in Sweden. Cedefop. Available at: <www.cedefop.europa.eu/files/5103_en.pdf> [Accessed 4 February 2017]

Andrews, P., Playfoot, J. (2014) Education and Training for the Oil and Gas industry: Building A Technically Competent Workforce.

Andrews, M. (1995). Against Good Advice: Reflections on conducting research in a country where you don't speak the language. *Oral History Review*, 22(2), 75-86.

Arab News (2010) TVTC sets up innovative job model with strategic partnership. Available at: <http://www.arabnews.com/node/348181> [Accessed 21 May 2018]

Arab News (2012) Hafiz: Inspiration for job seekers. Availed at: <http://www.arabnews.com/saudi-arabia/hafiz-inspiration-job-seekers> [Accessed 16 September 2017]

Arab News (2013) Saudization is Not the Answer. Available at: <http://www.arabnews.com/news/466289> [Accessed 20 December 2017].

Arab News (2014) Bab Rizq Jameel creates record job opportunities in 2013. Available at: <http://www.arabnews.com/news/509561> [Accessed 12 November 2017].

Arab News (2015) Thousands of applicants for Colleges of Excellence. Available at: <http://www.arabnews.com/saudi-arabia/news/718421> [Accessed 9 April 2016].

Arab News (2015a) Kingdom's ICT spending to exceed $35 billion in 2016. Available at: <http://www.arabnews.com/economy/news/852971> [Accessed 05 July 2016].
Arab News (2015b) Technology: Cisco's key focus for growth in KSA. Available at: <http://www.arabnews.com/economy/news/765121> [Accessed 23 July 2016].

Arab News (2016a) 18.5% TVTC grads working in defense sector. Available at: <http://www.arabnews.com/saudi-arabia/news/885481> [Accessed 22 April 2016].

Arab News (2016b) Factories must employ minimum of 10 women. Available at: <http://www.arabnews.com/saudi-arabia/news/911521> [Accessed 16 October 2016].

Arab News (2016d) Job chances for Saudis in IT sector up 24%. Available at: <http://www.arabnews.com/news/job-chances-saudis-it-sector-24> [Accessed 30 December 2016].

Arab News (2017) Saudi unemployment 12.8% in 2Q 2017. Available at: <http://www.arabnews.com/node/1170866/saudi-arabia> [Accessed 30 December 2016].

Arabian Business (2016) Saudi youth unemployment forecast to exceed 42% by 2030. Available at: <http://www.arabianbusiness.com/saudi-youth-unemployment-forecast-exceed-42-by-2030-653770.html> [Accessed 30 December 2016].

Aramco (2017a) Aramco Annual Review 2016. Available at: < http://www.saudiaramco.com/en/home/news-media/publications/corporate-reports/2016-annual-review.html> [Accessed 19 February 2017].

Aramco (2017d) Empowering Communities. Available at: <http://www.saudiaramco.com/en/home/citizenship/empowering-communities.html> [Accessed 19 February 2017].

Aramco (2017b) Performance and Key Figures. Available at: <http://www.saudiaramco.com/en/home/about/performance-key-figures.html> [Accessed 19 February 2017].

Aramco (2017c) Realizing Potential. Available at: <http://www.saudiaramco.com/en/home/citizenship/realizing-potential.html> [Accessed 19 February 2017].

Archer, M. (1995). *Realist social theory: The morphogenetic approach*. Cambridge university press.

Arpaia, A., Kiss, A., and Turrini, A. (2014) European Commission. Is Unemployment structural or cyclical? Main features of job matching in the EU after the crisis. Economic paper 527. Available at: <http://ec.europa.eu/economy_finance/publications/economic_paper/2014/pdf/ecp527_en.pdf> [Accessed 15 December 2017].

Assaad, R. and Roudi-Fahimi, F. (2007) Youth in MENA: Demographic Opportunity or Challenge. Washington, DC: Population Reference Bureau.

Auerbach, C. F. and Silverstein, L. B. (2003) *Qualitative data: An introduction to coding and analysis*. New York: New York University Press.

Baartman, L. K., & de Bruijn, E. (2011) Integrating knowledge, skills and attitudes: Conceptualising learning processes towards vocational competence. Educational Research Review, 6(2), pp.125-134.

Badillo-Amador, L., & Vila, L. E. (2013) Education and skill mismatches: wage and job satisfaction consequences. International Journal of Manpower, 34(5), pp.416-428.
Bailey, T., Berg, P., (2010) The vocational education and training system in the united states. In: Bosch, G., Charest, J. (Eds.), Vocational Training. International Per- spectives. Routledge, London and New York, pp. 271–294.

Baqadir, A.; Burns, G.; Patrick, F. (2011) Addressing the skills gap in Saudi Arabia: does vocational education address the needs of private sector employers?. Journal of Vocational Education & Training, 63(4), pp.551-561. Available at: <http://dx.doi.org/10.1080/13636820.2011.589533> [Accessed 25 January 2015].

Barrientos, K., and Majumdar, S. (2015) Narrowing the Global Skills Gap to Fight Youth Unemployment. Friends of Europe. Available at: <http://www.friendsofeurope.org/smarter-europe/narrowing-global-skills-gap-fight-youth-unemployment> [Accessed 7 October 2016].

Bassi, M., Blumberg, R. L. and Mateo Díaz, M. (2016). *Under the "Cloak of Invisibility": Gender Bias in Teaching Practices and Learning Outcomes*, IDB Working Paper Series, IDB-WP-696, Inter-American Development Bank (IDB), Washington, DC. Available at: https://publications.iadb.org/publications/english/document/Under-the-_Cloak-of-Invisibility_-Gender-Bias-in-Teaching-Practices-and-Learning-Outcomes.pdf. (Accessed: 10th January 2019).

Baussola, M., Jenkins, J., Mussida, C. and Penfold, M. (2015). *The Unemployment Gender Gap in a Comparative Perspective* (No. 5_2015).

Bayt. YouGov. (2016) The Skills Gap in the Middle East and North Africa. A Real problem or a Mere Trifle?. Available at: <https://secbm.b8cdn.com/emails/marketing/20160503/bayt_skills_gap_wp_2016.pdf> [Accessed 11 January 2017].

Beaumont, G. (1996) Review of 100 NVQs and SVQs. London: Department for Education and Employment.

Becker, G. S. (1962) Investment in human capital: A theoretical analysis. The journal of political economy, 70(5,Part 2), pp.9-49.

Beggs, J. 2017. The Beverage Curve. Available at: <https://www.thoughtco.com/overview-of-the-beveridge-curve-1148116> [Accessed 6 December 2017.]

Berkhout, E., et al. (2012) Into the gap: exploring skills and mismatches. Randstad and SEO Economic Research. Available at: <https://www.randstad.gr/editor/uploads/files/Surveys/Into-the-Gap.pdf -> [Accessed 6 March 2015].

Bhaskar, R. (1978) *A Realist Theory of Science*. Hassocks: Harvester Press.

Bhaskar, R. (2014). *The possibility of naturalism: A philosophical critique of the contemporary human sciences*, London: Routledge.

Bhaskar, R. (2016) Enlightened common sense: The philosophy of critical realism. Routledge.

Biavaschi, C., et al. (2013) Youth Unemployment and Vocational Training. World Development Report. Available at: <http://siteresources.worldbank.org/EXTNWDR2013/Resources/8258024-1320950747192/8260293-1320956712276/8261091-1348683883703/WDR2013_bp_Youth_Unemployment.pdf> [Accessed 29 February 2016].

Bilboe, W. (2011) Vocational education and training in Kuwait: Vocational education versus values and viewpoints. International Journal of Training Research, 9(3), pp.256-260.

Blaikie, N. (2010) *Designing social research.* Oxford: Blackwell.

Bloom, B. S. (1974) Taxonomy of Educational Objectives: The Classification of Educational Goals. Handbook 1-2. Longmans: McKay.

Binns, J. (2010). Leadership and the (in) visibility of gender. In *Revealing and Concealing Gender* (158-174). Palgrave Macmillan, London.

Binti, I., et al. (2014) Muslim women career advancement: a study of Indonesian public service, International Journal of Business and Social Science, 5(2), pp. 167-179.

Bonthius, B., Jarvis, V., and Vanhala, J. (2013) European Central Bank. What's going on behind the euro area Beveridge curve(s)? Working paper series. No. 1586. Available at: <https://www.ecb.europa.eu/pub/pdf/scpwps/ecbwp1586.pdf> [Accessed 18 October 2017].

Bosch, G., and Charest, J. (2008) Vocational training and the labour market in liberal and coordinated economies. Industrial Relations Journal, 39(5), pp.428-447.

Bova, E., Jalles, J., and Kolerus, C. (2016) International Monetary Fund. Shifting the Beverage Curve: What affects labor market matching?. Available at: <https://www.imf.org/external/pubs/ft/wp/2016/wp1693.pdf> [Accessed 18 October 2017].

Bozionelos, N. (2009) Expatriation outside the boundaries of the multinational corporation: A study with expatriate nurses in Saudi Arabia. Human Resource Management, 48(1), pp.111-134.

Braun, V., and Clarke, V. (2006) Using thematic analysis in psychology. Qualitative Research in Psychology, 3(2), pp.77–101.

Brislin, R. W. (1970). Back-translation for cross-cultural research. *Journal of cross-cultural psychology*, *1*(3), 185-216.

British Council and UKTI. 2012. Putting skills at the heart of global economic success. A brief guide to UK technical, vocational education and training (TVET). UKTI publication reference number URN 12/876. Available at: <http://www.ukieri.org/images/pdf/TVET_Guide.pdf> [Accessed 28 May 2018].

Brockmann, M. (2011) Higher education qualifications: convergence and divergence in software engineering and nursing. In: Brockmann, M., Clarke, L., Winch, C. (Eds.), Knowledge,

Skills and Competence in the European Labour Market. What's in a vocational qualification? Routledge, Abingdon and New York, pp. 120–135.

Brockmann, M., et al. (2008) Competence-based vocational education and training (VET): the cases of England and France in a European perspective. Vocations and Learning, 1(3), pp.227-244.

Brockmann, M., Clarke, L., and Winch, C. (2011) Knowledge, skills and competence in the European labour market: what's in a vocational qualification? Routledge.

Brodmann, S., Cuadra, E. P., Allouche, M. I., & Hillis, S. A. (2012). From Education-to-Work: Opportunities and Challenges in the West Bank and Gaza.

Burrell, G. and Morgan, G. (2005) *Sociological paradigms and organisational analysis: Elements of the sociology of corporate life.* Aldershot: Ashgate.

Business Wire (2017) Comptel and STC Collaborate to Fulfil the Kingdom of Saudi Arabia's 2030 Vision. Available at: <http://www.businesswire.com/news/home/20170329005140/en/Comptel-STC-Collaborate-Fulfill-Kingdom-Saudi-Arabia's> [Accessed 30 October 2017].

Butrymowicz, S. 2012. Push for career-technical education meets parent resistance. Available at: http://hechingerreport.org/push-for-career-technical-education-meets-parent-resistance/ [Accessed 27 May 2018].

Calvert, J.R. and Al-Shetaiwi, A.S., (2002) Exploring the mismatch between skills and jobs for women in Saudi Arabia in technical and vocational areas: The views of Saudi Arabian private sector business managers. *International Journal of Training and Development*, *6*(2), pp.112-124.

Cambridge English Dictionary (2018). *"Skill" Meaning in the Cambridge English Dictionary*. Available at: <https://dictionary.cambridge.org/dictionary/english/skill> [Accessed 24 May 2018]

Cappelli, P. (2014). *Skill gaps, skill shortages and skill mismatches: Evidence for the US* (No. w20382). National Bureau of Economic Research.

Carnoy, M. (1994) Efficiency and equity in vocational education and training policies. International Labour Review, 133(2), pp.221-240.

CEDEFOP (2008) Terminology of European education and training policy – A selection of 100 key terms. Luxembourg: Publications office. Available at: <http://www.cedefop.europa.eu/en/files/4064_en.pdf> [Accessed 21 September 2014].

CEDEFOP (2010a) Skills Supply and Demand in Europe: Medium Term Forecast up to 2020. Luxembourg : Publications office. Available at: <http://www.cedefop.europa.eu/en/publications-and-resources/publications/3052> [Accessed 04 August 2015].

CEDEFOP (2010b) The skill matching challenge – Analysing skill mismatch and policy implications. Luxembourg: Publications office. Available at: <http://www.cedefop.europa.eu/en/files/3056_en.pdf> [Accessed 04 August 2015].

CEDEFOP (2012) From education to working life. The labour market outcomes of vocational education and training. Luxembourg: Publications Office of the European Union. Available at:

<http://www.cedefop.europa.eu/en/publications-and-resources/publications/3063> [Accessed 12 January 2015].

CEDEFOP (2014) Annual Report 2013. Luxembourg: Publications office. Available at: <http://www.cedefop.europa.eu/download-manager.aspx?id=24005&lang=en&type=publication> [Accessed 24 September 2014]

CEDEFOP (2015a) Skill shortages and gaps in European enterprises. Striking a balance between vocational education and training and the labour market. Available at <https://www.google.com.eg/url?sa=t&rct=j&q=&esrc=s&source=web&cd=2&ved=0ahUKEwjUyoyh_uXYAhUH8RQKHY3LCbcQFggvMAE&url=http%3A%2F%2Fwww.cedefop.europa.eu%2Ffiles%2F3071_en.pdf&usg=AOvVaw2xbfH9Jc2XkllpQKafyc_y> [Accessed 9 October 2017].

CEDEFOP (2015b) Tacking unemployment while addressing skill mismatch. Lessons from policy and practice in European Union countries. Luxembourg: Publications Office of the European Union. Cedefop research paper No. 46. Available at: <www.cedefop.europa.eu/files/5546_en.pdf> [Accessed 24 October 2017].

Cedefop (2015c). CVET in Europe: the way ahead. Luxembourg: Publications Office of the European Union. Cedefop reference series; 101. Available at: <www.cedefop.europa.eu/files/3070_en.pdf> [Accessed 27 May 2018].

Chakroun, B., Holmes, K.P., and Marope, P.T.M. (2015) Unleashing the Potential. Transforming Technical and Vocational Education and Training. UNESCO Publishing. Education on the move. Available at: <http://unesdoc.unesco.org/images/0023/002330/233030e.pdf> [Accessed 20 September 2016].

Charmaz, K. (2011) Grounded theory methods in social justice research. *The Sage handbook of qualitative research*, *4*(1), pp. 359-380.

Choughari, H. (2015) The Wages Protection System (WPS) in Saudi Arabia. Available at: <https://www.linkedin.com/pulse/wages-protection-system-wps-saudi-arabia-hassan-choughari> [Accessed 8 May 2016].

Choy, S. (2018). Transitions from education to work: workforce ready challenges in the Asia Pacific.

CIPD. (2017a). Human Capital Analytics and Reporting: Exploring Theory and Evidence. Available at: <https://www.cipd.co.uk/Images/human-capital-analytics-and-reporting_tcm18-22281.pdf> [Accessed 18 January 2018].

CIPD (2017b) From 'inadequate' to 'outstanding': making the UK's skills system world class. Policy Report. Available at: <https://www.cipd.co.uk/Images/from-inadequate-to-outstanding_2017-making-the-UK-skills-system-world-class_tcm18-19933.pdf> [Accessed 24 October 2014].

CISCO (2016) CISCO Annual Report. Available at: <http://www.cisco.com/c/dam/assets/about/ar/pdf/2015-cisco-annual-report.pdf> [Accessed 23 July 2016].

CISCO (2017) Netversity. Available at: <https://www.cisco.com/web/ME/sa/netversity/whatis.html> [Accessed 23 July 2016].

Communication Information Technology Commission (CITC) (2015) ICT report. ICT Workforce in the Kingdom of Saudi Arabia. Available at: <www.citc.gov.sa> [Accessed 12 November 2017)

CITC (2017) ICT Indicators. Available at: <http://www.citc.gov.sa/en/reportsandstudies/indicators/Pages/CITCICTIndicators.aspx> [Accessed 30 October 2017].

City and Guilds Group (2016) Sense & Instability. Available at: <https://www.cityandguildsgroup.com/~/media/CGG%20Website/Documents/sense-instability-2016-full-report-pdf.ashx> [Accessed 27 November 2017].

Claes, D.H. (2018) The politics of oil-producer cooperation. Routledge.

Clarke, K. (2007) A Modernization Paradox. Harvard International Review. Available at: <http://hir.harvard.edu/article/?a=1676> [Accessed 17 April 2014].

Clarke, L. (2011) Trade? job? or occupation?: the development of occupational labour markets for bricklaying and lorry driving. In: Brockmann, M., Clarke, L., Winch, C. (Eds.), Knowledge, Skills and Competence in the European Labour Market. What's in a vocational qualification? Routledge, Abingdon and New York.

Clyde & Co. (2016) Employment & labour law in Saudi Arabia. Available at: <https://www.lexology.com/library/detail.aspx?g=6ba28ace-2bcf-49a7-9cba-98b08a8ff5a6> [Accessed 25 June 2017].

CNN (2017) Saudi Arabia will issue its first tourist visas in 2018. Available at: <http://money.cnn.com/2017/11/22/news/economy/saudi-arabia-tourist-visa/index.html> [Accessed 14 March 2018].

Cohen, L., Manion, L. and Morrison, K. (2008). *Research methods in education*, London: Routledge.

Collis, J. and Hussey, R. (2013) *Business research: A practical guide for undergraduate and postgraduate students.* Palgrave macmillan

Community Jameel (2017) Productive family programme. Available at: <https://www.cjameel.org/en/initiatives/job-creation/productive-family-programme> [Accessed 16 March 2017].

Comyn, P., and Barnaart, A. (2010) TVET reform in Chongqing: big steps on a long march. Research in Post-Compulsory Education, 15(1), pp.49-65.

Confederation of British Industry. (2010). Future Fit: Preparing Graduates for the World of Work. Education + Training, Vol. 52 Issue: 4. <https://doi.org/10.1108/et.2010.00452dab.008> [Accessed 23 July 2016].

Creswell, J. W., & Miller, D. L. (2000). Determining validity in qualitative inquiry. *Theory into practice*, *39*(3), 124-130.

Creswell, J. W. and Creswell, J. D. (2017) *Research design: Qualitative, quantitative, and mixed methods approaches.* Sage publications.

Crockett, Teddy, (2014) Rethinking Arab employment: a systemic approach for resource-endowed economies. World Economic Forum, Geneva, Switzerland.

Davenport, R. (2006) Eliminate the skills gap. T AND D, 60(2), p.26.

Darke, P., Shanks, G., & Broadbent, M. (1998). Successfully completing case study research: combining rigour, relevance and pragmatism. *Information systems journal*, *8*(4), 273-289.

DeBoer, J. and Ater Kranov, A. (2017). Key Factors in the Tertiary Educational Trajectories of Women in Engineering: Trends and Opportunities in Saudi Arabia, the GCC, and Comparative National Settings.

Deißinger, T. (2012) Reforming the VET System via National Qualification Frameworks? A Comparison of Germany and Austria (pp. 305-320). VS Verlag für Sozialwissenschaften.

De Ferranti, D.M. ed. (2003) Closing the gap in education and technology. World Bank Publications.
Department for Education (2017) Post-16 technical education reforms. T level action plan. Available at: <https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/650969/T_level_Action_Plan.pdf> [Accessed 12 January 2017].

Denscombe, M. (2014) *The good research guide: for small-scale social research projects*. 5th ed. Maindenhead: Open University Press

Deutsche Welle (DW) (2018) Saudi Arabia's cultural change: Civil society meets 'top-down' reform. Available at: < http://www.dw.com/en/saudi-arabias-cultural-change-civil-society-meets-top-down-reform/a-42760360> [Accessed 5 June 2018]

Di Pietro, G., and Urwin, P. (2006) Education and skills mismatch in the Italian graduate labour market. Applied Economics, 38(1), pp.79-93.

Diwan, I. (2016) Saudi Arabia's Job Policy That Needs Change. Available at: <https://gulfnews.com/business/analysis/saudi-arabia-s-job-policy-that-needs-change-1.1831804> Accessed 28 October 2017].

Djafari, N. (2017) Breaking up ossified structures. Available at: <https://www.dandc.eu/en/article/labour-market-saudi-arabia-inflexible-unjust-and-limiting-countrys-economic-renewal> [Accessed 26 December 2017].

Dixon, R.A.; Hutton, D.M. (2016) STEM and TVET In The Caribbean. A Framework for Integration at the Primary, Secondary, and Tertiary Levels. Caribbean Curriculum. Vol. 24, 2016, 1-26. Available at: <http://uwispace.sta.uwi.edu/dspace/bitstream/handle/2139/42602/Framework%20for%20Integrating%20STEM%20in%20TVET%20Dixon%20and%20Hutton.pdf?sequence=1> [Accessed 27 May 2018].

Doroob (2017) E-Learning Program. Available at: <https://www.doroob.sa/en/individuals/elearning/> [Accessed 30 December 2017].

Dudley, D. (2013). Riyadh looks beyond religious tourism. Middle East Business Intelligence (MEED) Special Report. Available at: <https://www.meed.com/sectors/government/tourism/riyadh-looks-beyond-religious-tourism/3176195.article> [Accessed: 30 October, 2016]

Easterby-Smith, M., Thorpe, R. and Lowe, A. (2002), *Management research*, London: Sage Publications

Economic Commission (2005) European Employment Observatory Review: Autumn 2005. Brussels, European Commission. Available at: <http://aei.pitt.edu/43890/1/autumn_2005.pdf> [Accessed 19 April 2014].

Edwards, R., & Holland, J. (2013). *What is qualitative interviewing?*. A&C Black.

Eichhorst, W., et al. (2012) A Roadmap to Vocational Education and Training Systems Around the World. IZA Discussion Paper series No. 7110. Available at: < https://www.econstor.eu/bitstream/10419/69486/1/734002173.pdf> [Accessed 5 June 2016].

Elamin, A. and Omair, K. (2010) Males' attitude towards working females in Saudi Arabia, Personnel Review, 39(6), pp. 746-766.

Elamin. A., and Tlaiss, H. (2016) Human resource management in Saudi Arabia. Handbook of Human Resource Management in the Middle East. UK: Edward Elgar Publishing, pp141-158.

El-Katiri, L. (2016) Harvard Business Review. Saudi Arabia's labor Market Challenge. Available at: <https://hbr.org/2016/07/saudi-arabias-labor-market-challenge> [Accessed 16 December 2016].

Emory, C. W. (1976), *Business research methods*. Illinois: Richard D. Irwin, Inc.

Encyclopaedia Britannia (1998) Technical education. Available at: <https://www.britannica.com/topic/technical-education> [Accessed 25 September 2014].

Encyclopaedia Britannia (2016) Vocational education. Available at: <https://www.britannica.com/topic/vocational-education> [Accessed 7 October 2017].

European Training Foundation (ETF) (2005) Reforming Technical Vocational Education and Training in the Middle East and North Africa. Experiences and Challenges. The World Bank. Available at: <http://www.etf.europa.eu/pubmgmt.nsf/(getattachment)/1ca4f509e4ea94a7c125718e005867f4/$file/note6qsluq.pdf> [Accessed 9 July 2015].

Eurobarometer (2011) Attitudes towards education and training. Summary. Special Eurobarometer 369 / Wave EB75.4 – TNS opinion & social. European Commission. Available at: <http://ec.europa.eu/commfrontoffice/publicopinion/archives/ebs/ebs_369_sum_en.pdf> [Accessed 14 July 2015].

European Commission (2012) Apprenticeship supply in the Member States of the European Union. Luxembourg, Belgium: Publications Office of the European Union. Available at: <ec.europa.eu/social/BlobServlet?docId=7717&langId=en> [Accessed 10 October 2015].

Eurofound (2015) European Company Surveys. Available at: https://www.eurofound.europa.eu/surveys/european-company-surveys> [Accessed 3 December 2017].

Eurostat (2016) Your key to European statistics. Available at: <http://ec.europa.eu/eurostat/web/experimental-statistics/skills> [Accessed 8 December 2017].

Ertürk, Y. (2009) Report of the Special Rapporteur on violence against women, its causes and consequences. Yakin Ertürk: Addendum: Mission to Saudi Arabia. New York City, NY: United

Nations Human Rights Council. Available at: <http://www.refworld.org/docid/49f8448a2.html> [Accessed 22 October 2016].

EVOSYS (2015) Gap Between Education System and Labor Market in Saudi Arabia. Available at: <http://www.evosys.biz/finalversion.pdf> [Accessed 27 September 2016].

Farhan, B.F. (2016) Unemployment in Saudi Arabia: Impact of foreign workers on the Saudi labor force (Doctoral dissertation, Morgan State University).

Felstead, A., et al. (2011) Working to learn, learning to work. Praxis Issue number, 7. UK Commission for Employment and Skills, Wath-Upon-Dearne.

Ferrera, M., Hemerijck, A., and Rhodes, M. (2001) The future of the European "social model" in the global economy. Journal of Comparative Policy Analysis, 3(2), pp.163-190.

Figueiredo, H., Biscaia, R., Rocha, V. and Teixeira, P. (2017) Should we start worrying? Mass higher education, skill demand and the increasingly complex landscape of young graduates' employment. Studies in Higher Education, 42(8), pp.1401-1420.
Financial Times (FT) (2017) Saudi Arabia edges more women into work. Available at: <https://www.ft.com/content/c55d6cf4-8cd3-11e7-9084-d0c17942ba93> [Accessed 2 December 2017].

Fitzsimons, P. (2015). Human capital theory and education. In *Encyclopedia of educational philosophy and theory* (1-4). Springer Singapore.

Fleetwood, S. (2014) Bhaskar and critical realism, in Adler, P., Du Gay, P., Morgan, G. and Reed, M. (eds.) *Oxford Handbook of Sociology, Social Theory and Organisation Studies: Contemporary Currents*. Oxford: Oxford University Press, pp. 182-219.

Forbes (2017) The Fun Starts Now: Saudi Government Launches $3 Billion Investment Drive In Entertainment Sector. Available at: <https://www.forbes.com/sites/dominicdudley/2017/09/21/saudi-3bn-investment-entertainment/#6fc40fa71baa> [Accessed 12 March 2018].

Foreign Credits (2012) Saudi Arabia Education System. Available at: <https://www.classbase.com/countries/saudi-arabia/education-system> [Accessed 23 November 2016].

Forstenlechner, I., and Rutledge, E. (2010) Unemployment in the Gulf: time to update the "social contract". Middle East Policy, 17(2), pp.38-51.
Fortune (2015) Women are taking over Saudi Arabia's workforce. Available at: <http://fortune.com/2015/08/10/women-saudi-arabia/> [Accessed 29 September 2016].

Fuller, A., and Unwin, L. (2011) Apprenticeship as an evolving model of learning. Journal of Vocational Education and Training, 63(3), pp.261-266.

G20 (2014) Employment Plan 2014 Saudi Arabia. Available at: <http://g20.org.tr/wp-content/uploads/2014/12/g20_employment_plan_saudi_arabia.pdf> [Accessed 29 September 2016].

Gambin, L., et al. (2016) Research to understand the extent, nature and impact of skills mismatches in the economy. Department for Business Innovation & Skills. Research paper number 265. Available at: <https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/522980/BI

S-16-260-research-skills-mismatches-in-the-economy-May-2016.pdf> [Accessed 11 January 2017].

Garcia-Espejo, I., and Ibáñez, M. (2006) Educational-skill matches and labour achievements among graduates in Spain. European Sociological Review, 22(2), pp. 141-156.

Garcia, M., and Fares, J. (2008) The effect of education on income and employment. In Garcia, M., & Fares, J. (eds.) Youth in Africa's Labour Market. Washington DC: World Bank, 39-47.

General Authority for Statistics KSA (GAStat) (2017a) Population and vital statistics. Available at: <https://www.stats.gov.sa/en/43> [Accessed 20 March 2017].

General Authority for Statistics KSA (GAStat) (2017b) Labour Force Survey. Q3 2017. Available at: <https://www.stats.gov.sa/en/814> [Accessed 20 March 2017].

General Authority for Statistics KSA (GAStat) (2011-16) Achievements of General Training Programs by Sector and Program. Available at: <https://www.stats.gov.sa> [Accessed 20 March 2017].

General Authority for Statistics KSA (GAStat) (2018) Unemployment rate. Available at: <https://www.stats.gov.sa/en/820> [Accessed 21 June 2018]

Georgellis, Y., and Lange, T. (2007) Participation in continuous, on-the-job training and the impact on job satisfaction: longitudinal evidence from the German labour market. The International Journal of Human Resource Management, 18(6), pp.969-985.

Gerson, K. and Horowitz, R. (2002) 'Observation and interviewing: Options and choices in qualitative research'. *Qualitative research in action*, *9*(1), pp. 201-224.

Ghorfa (2013) Partnerships and Perspectives of Arab-German Cooperation. Available at: <https://www.google.de/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&cad=rja&uact=8&ved=0ahUKEwiEteDElqDXAhVEIpoKHXGpA-EQFggmMAA&url=https%3A%2F%2Fwww.giz.de%2Finternational-services%2Fen%2Fdownloads%2FAGEduGuide2013_GIZ_LR.pdf&usg=AOvVaw2c2gyhYJv5s0QjYo2u_Bb8> [Accessed 12 September 2016].

Ghoshray, A., and Johnson, B. (2010) Trends in world energy prices. Energy Economics, 32(5), pp.1147-1156.

Gimenez-Nadal, J.I. and Molina, J.A. (2014). Regional unemployment, gender, and time allocation of the unemployed. *Review of Economics of the Household*, *12*(1), pp.105-127.

Gingras, Y. and Roy, R. (2000) Is there a skill gap in Canada?. Canadian Public Policy/Analyse de politiques, pp. S159-S174.

Glaser, B.G. and Strauss, A.L. (2017) *Discovery of grounded theory: Strategies for qualitative research*. London: Routledge.

Global Competitiveness Forum (2015) Competitive Governments: Information & Communication Technology (ICT) Sector in Saudi Arabia. Available at: <http://www.gcf.org.sa/en/MediaCenter/MediaLibrary/Documents/WP_ICT.pdf> [Accessed 05 July 2016].

Goel, D. and Vijay, P. (2017) Echnical and vocational education and training (tvet) system\in india for sustainable development.

Gray, L., Warrender, A.M., Davies, P., Hurley, G. and Manton, C. (1996) Labour market signals & indicators-Education Research Paper No. 15, London: Overseas Development Administration.

Green, P.E. and Tull, D.S. (1970) Research for marketing decisions.

Green, F. (2011) What is skill? An inter-disciplinary synthesis. Centre for Learning and Life Changes in Knowledge Economies and Societies.

Green, A. et al. (2017) Local skills case study. Research Report. University of Warwick. Department of Education. Available at: <https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/603951/Local_skills_case_study.pdf> [Accessed 29 April 2017].

Green, A., and Hogarth, T. (2016) The UK skills system: how aligned are the public policy and employer views of training provision? Government Office for Science. Foresight Future of Skills and Lifelong Learning. Available at: <https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/571695/ER8_The_UK_skills_system_how_aligned_are_public_policy_and_employer_views_of_training_provision.pdf> [Accessed 12 December 2017].

Green, F., and McIntosh, S. (2007) Is there a genuine under-utilization of skills amongst the over-qualified?. Applied Economics, 39(4), pp.427-439.

Green, F. (2016) Skills Demand Training and Skills Mismatch: A review of Key Concepts, Theory and Evidence. Government Office for Science. Foresight Future of Skills and Lifelong Learning. Available at: <http://dera.ioe.ac.uk/29190/1/ER4_Skills_Demand__Training_and_Skills_Mismatch_A_Review_of_Key_Concepts__Theory_and_Evidence.pdf.> [Accessed 12 December 2017].

Green Globe (2010) Mövenpick Hotels and Resorts signs Green Globe Certification partnership. Available at: <http://greenglobe.com/latest-news/movenpick-hotels-and-resorts-signs-green-globe-certification-partnership/> [Accessed 21 October 2017].

Grossmann, M., and Naanda. R. (2006) Back to the Future? The Challenges of Reforming Vocational Education and Training (VET) Systems: a critical analysis of Namibia's current VET reform. Research Paper 64. ESRC funded Centre on Skills, Knowledge and Organisational Performance. Oxford and Warwick Universities. ISSN 1466-1535. Available at: <http://www.skope.ox.ac.uk/wp-content/uploads/2014/04/SKOPERP64.pdf> [Accessed 10 July 2014].

Gulf Business (2016) Saudi appoints board for newly created entertainment entity. Available at: <http://gulfbusiness.com/saudi-appoints-board-for-newly-created-entertainment-entity> [Accessed 14 August 2017].

Halpern, M. (2015) Politics of Social Change: In the Middle East and North Africa. Princeton University Press.

Hamlyn, D.W. (1995) Epistemology, history of. *The oxford companion to philosophy*, pp. 242-245.

Handel, M. J. (2003) Skills mismatch in the labor market. Annual Review of Sociology, *29*(1), pp.135-165.

Handel, M.J. (2005) Worker Skills and Job Requirements: Is There a Mismatch?. Washington, DC: Economic Policy Institute.

Hanf, G. (2011) The changing relevance of the Beruf. In: Brockmann, M., Clarke, L., Winch, C. (Eds.), Knowledge, Skills and Competence in the European Labour Market. What's in a vocational qualification? Routledge, Abingdon and New York, pp. 50–67.

Hannon, E.J. (2005) *Prospects for the upskilling of general workers in Britain: a case study comparison of the English and Irish dairy processing industries*, PhD Thesis, University of Warwick.

Harding, S. G. (1987) *Feminism and methodology: Social science issues.* Indiana University Press.

Hasan, S. (2015) Workforce localization in the GCC countries: policies, practices, and the labor-exporting countries' responses. Philippine Political Science Journal, 36(2), pp.147-166.

Henderson-Morrow, K. (2013) The Leitch Review seven years on – still relevant and achievable?. Learndirect. Available at: <http://www.learndirect.com/business/wp-content/uploads/2013/06/learndirect-white-paper-for-TJ-Leitch-seven-years-on.pdf> [Accessed 3 November 2014].

Heyneman, S.P. (1997) The quality of education in the Middle East and North Africa (MENA). International Journal of Educational Development, 17(4), pp.449-466.

Higher Education and Career Fair (2017) Welcome to HECF. Available at: <http://hecfsaudi.com/agenda.php> [Accessed 25 January 2018].

Hippach-Schneider, U., and Weigel, T. (2012) VET qualifications versus bachelor degrees? Recruitment at the intermediate qualification level–Case studies from Germany, England and Switzerland. In The future of vocational education and training in a changing world (pp. 259-272). VS Verlag für Sozialwissenschaften.

Hoeckel, K. (2008) Costs and benefits in Vocational Education and Training. Paris: Organisation for Economic Cooperation and Development.

Hooper, K. and Sumption, M. (2016) Reaching "FaiR Deal" on TalenT. Available at: <http://www.migrationpolicy.org/sites/default/files/publications/TCM-Emigration-FairDeal-FINAL.pdf> [Accessed 22 July 2016].

Hospitality Net (2009) Online Training At Mövenpick. Available at: <https://www.hospitalitynet.org/news/4041206.html> [Accessed 28 October 2016].
Hospitality Net (2017) Mövenpick Hotels & Resorts expands further in Saudi Arabia with new project in Wa'ad Al Shamal City. Available at: <https://www.hospitalitynet.org/news/4081314.html> [Accessed 2 August 2017].

Howard, C., and Rimini, M. (2015) Skills Mismatch 3 Apprenticeship Supply in the European Union, Youth Engagement and the Labour Market. Available at: <https://drive.google.com/file/d/0B1HvJzTnvhLfUjRXN1dmaWh1VmM/view> [Accessed 28 October 2016].

Howden, D. (2007) World oil supplies are set to run out faster than expected, warn scientists. The Independent, June 2007.

HRDF (2017a) Human Resources Development Fund – HRDF. Available at: <https://www.hrdf.org.sa/Program/298/Doroob?bc=264> [Accessed 11 May 2017].

HRDF (2017b) Doroob. Available at: <https://www.hrdf.org.sa/Program/298/Doroob?bc=264> [Accessed 11 May 2017].

HRDF (2017c) Tamheer. Available at: <https://www.hrdf.org.sa/Program/433/Tamheer?bc=264> [Accessed 11 May 2017].

Human Rights Watch (HRW) (2016) Boxed in: Women and Saudi Arabia's male guardianship. Available at: <https://www.hrw.org/sites/default/files/report_pdf/saudiarabia0716web.pdf> [Accessed 10 November 2017].

ICCDPP (2015) International Symposium. Available at: <http://www.is2015.org/?s=%29+International+Symposium+> [Accessed 30 November 2017].

ICEF Monitor (2016) Foreign providers work to overcome early losses for Saudi branch campuses. Available at: <http://monitor.icef.com/2016/08/foreign-providers-work-overcome-early-losses-saudi-branch-campuses/> [Accessed 26 February 2017].

International Labour Office (2011) G20 Country Policy Briefs. Available at: <https://www.oecd.org/els/emp/48724804.pdf> [Accessed 27 April 2014].
International Monetary Fund (IMF) (2016) Saudi Arabia: Selected Issues. Available at: <https://www.imf.org/en/Publications/CR/Issues/2016/12/31/Saudi-Arabia-Selected-Issues-44329> [Accessed 19 February 2017].

International Labour Office (ILO) (2012) Upgrading informal apprenticeship. A resource guide for Africa. ILO Skills and Employability Department. Available at: <http://www.ilo.org/wcmsp5/groups/public/---africa/---ro-addis_ababa/documents/publication/wcms_171393.pdf> [Accessed 8 March 2015].

International Labour Office (ILO) (2014) Skills Mismatch in Europe. Statistics Brief. Available at: <http://www.ilo.org/wcmsp5/groups/public/---dgreports/---stat/documents/publication/wcms_315623.pdf> [Accessed 21 May 2018].

International Labour Office (ILO) (2017) The ILO Global Product on Jobs and Skills Mismatch. Available at: <http://www.ilo.org/skills/pubs/WCMS_554330/lang--en/index.htm> [Accessed 17 January 2017].

International Labour Organisation (ILO) (2017) ILO meeting to focus on jobs and skills mismatch. Available at: <http://www.ilo.org/global/about-the-ilo/newsroom/news/WCMS_553276/lang--en/index.htm> [Accessed 17 January 2017].
Jadwa Investment (2017) Saudi Labor Market Update – Q2 2017. Available at: <http://www.jadwa.com/en/researchsection/research/economic-research/labor-market-reports> [Accessed 12 March 2018].

Jalongo, M. R., and Heider, K. (2006) Editorial teacher attrition: An issue of national concern. Early Childhood Education Journal, 33(6), pp.379-380

Jeddah Chamber (2016). Tourism in Saudi Arabia April 2016. Available at: <http://www.jeg.org.sa/data/modules/contents/uploads/infopdf/2867.pdf> [Accessed 28 September 2016]

Job opening and Labor Turnover Survey (2017) Highlights. Available at: <https://www.bls.gov/web/jolts/jlt_labstatgraphs.pdf> [Accessed 16 January 2018].

Kapborg, I., & Berterö, C. (2002). Using an interpreter in qualitative interviews: does it threaten validity?. *Nursing inquiry*, *9*(1), 52-56.

Katou, A. A., et al. (2010) Influence of ethical beliefs, national culture and institutions on preferences for HRM in Oman. Personnel Review, 39(6), pp.728-745.

Kattuah, S. E. (2013) Workforce Training for Increased Productivity in Saudi Arabia (Doctoral dissertation, Victoria University Melbourne Australia).

Keating, J.; Meredith, E.; Volkoff, V.; Perry, J. 2002. Review of Research. Comparative study of vocational education and training systems. National vocational education and training systems across three regions under pressure of change. National Centre for Vocational Education Research (NCVER). Available at: <http://unpan1.un.org/intradoc/groups/public/documents/apcity/unpan010348.pdf> [Accessed 26 May 2018].

Kerlinger, F. N. (1986) *Foundations of educational research*. New York: Holt, Rinehart & Wineston

Khan, F., Aradi, W., Schwalje, W., Buckner, E. and Fernandez-Carag, M. (2017). Women's participation in technical and vocational education and training in the Gulf States. *International Journal of Training Research*, *15*(3), pp.229-244.

Khan, T.N. and Sultana, R. (2017) Barriers and challenges of Saudiasation: an integrative model. Middle East Journal of Management, 4(3), pp.185-202.

Khashan, H. (2017) Saudi Arabia's Flawed" Vision 2030". Middle East Quarterly, 24(1), p.1D.

Kingdom of Saudi Arabia, (2017) Vision 2030. Available at: <http://vision2030.gov.sa/ar/node> [Accessed 14 January 2018].

King, K. (2009) Education, skills, sustainability and growth: Complex relations. International Journal of Educational Development, 29(2), pp.175-181.

Klees, M. (2013) The Change of Saudi Arabia's TVET System. Technical Trainers College. Available at: < https://www.imove-germany.de/cps/rde/xbcr/imove_projekt_de/d_Education-Forum-2013_Session1_Klees.pdf > [Accessed 7 January 2014].

Koyame-Marsh, R.O., (2016) Saudization and the Nitaqat Programs: Overview and Performance. Journal of Accounting, Finance and Economics, 6(2), pp.36-48.

Kruger,N. (2016) World Economic Forum. South Africa has a skills shortage. How do we fix it?. Available at: <https://www.weforum.org/agenda/2016/05/south-africa-skills-shortage-how-do-we-fix-it/> [Accessed 29 December 2017].

Kuntze, J., and Hormann, M. (2006) Migrating to skills based nationalisation. Pipeline Magazine.

Kupets, O. (2017) The labour Market Impact of Skills Mismatch: A Global View. ILO: Schoolt-To-Work Transition Survey. Available at: <http://www.ilo.org/wcmsp5/groups/public/---ed_emp/---ifp_skills/documents/presentation/wcms_554332.pdf> [Accessed 5 January 2018].

Kvale, S. (2008). *Doing interviews*. Sage.

Laureate Vocational Saudi Arabia (2017) Program Overview. Available at: <http://www.laureatevocational.sa/diploma/program-overview/> [Accessed 29 December 2017].

Leslie, D. and Russell, H. (2006) The importance of foreign language skills in the tourism sector: A comparative study of student perceptions in the UK and continental Europe. Tourism Management, 27(6), pp.1397-1407.

Levels, M., van der Velden, R., and Allen, J. (2014) Educational mismatches and skills: New empirical tests of old hypotheses. ROA Research Memorandum (RAO-RM-2013/18), Research Centre for Education and the Labour Market (ROA), Maastricht University.

Levesque, K., Laird, J., Hensley, E., Choy, S. P., Cataldi, E. F., & Hudson, L. (2008) Career and technical education in the United States: 1990-2005: statistical analysis report. NCES 2008-035. *National Center for Education Statistics*.

Lewis, G.B. and Frank, S.A. (2002) Who wants to work for the government?. Public administration review, 62(4), pp.395-404.

LinkedIn (2017) Communications and Information Technology Commission. Available at: <https://www.linkedin.com/company/citc> [Accessed 23 September 2017].

Livingstone, D.W. (2018) The Education-Jobs Gap: Underemployment or Economic Democracy?. Routledge.

Lucia, A. D., & Lepsinger, R. (1999). The art and science of competency models: Pinpointing critical success factors in organizations New York: Pfeiffer.

Lyons, S.T., Duxbury, L.E. and Higgins, C.A. (2006) A comparison of the values and commitment of private sector, public sector, and parapublic sector employees. Public administration review, 66(4), pp.605-618.

Mackenzie, J. and Rose-Anne, P. (2009), "TVET glossary: some key terms", in Maclean, D.W. (Ed.), International Handbook of Education for the Changing World of Work, Springer ScienceþBusiness Media B.V, pp. 59-76.

Maclean, R. and Fien, J. (2017) Introduction and overview: TVET in the Middle East–issues, concerns and prospects.

Madhi, S.T. and Barrientos, A. (2003) Saudisation and employment in Saudi Arabia. Career Development International, 8(2), pp.70-77.

McClelland, D. C. (1973). Testing for competence rather than for intelligence. American Psychologist.

McGowen, M. A., and Andrews, D., (2017) Skills mismatch, productivity and policies: evidence from the second wave of PIACC [Online]. Economics Department Working Papers No.1403.

Available at: <http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=ECO/WKP(2017)35&docLanguage=En> [Accessed 11 December 2017].

McGuinness, S., Pouliakas, K. and Redmond, P. (2018) Skills mismatch: concepts, measurement and policy approaches. Journal of Economic Surveys.

McKinsey Global Institute (2012) The world at work: Jobs, pay, and skills for 3.5 billion people. Available at: <https://www.mckinsey.com/~/media/McKinsey/Global%20Themes/Employment%20and%20Growth/The%20world%20at%20work/MGI%20Global_labor_Full_Report_June_2012.ashx> [Accessed 11 April 2015].

ManpowerGroup (2016). 2016 Talent Shortage Survey. Available at: <http://www.manpowergroup.co.uk/the-word-on-work/2016-talent-shortage-survey/> [Accessed 28 November 2017].

ManpowerGroup (2016). 2016/2017 Talent Shortage Survey. Available at: <http://www.manpowergroup.com/talent-shortage-explorer/#.Wm8K30tpHBU> [Accessed 28 November 2017].

March International (2017) Career Training. Available at: < https://www.marche-int.com/en/carreer/training> [Accessed 24 March 2017].

Maroun, N., et al. (2008) How to succeed at education reform: The case for Saudi Arabia and the broader GCC region. Abu Dhabi, Ideation Center, Booz & Company, 109, p.113.

Maselli, I. (2012) The evolving supply and demand of skills in the labour market. Intereconomics, 47(1), pp.22-30.

Mashood, N., Verhoeven, H., and Chansarkar, B. (2009) Emiratisation, Omanisation and Saudisation–common causes: common solutions. In proceedings of the 10th International Business Research Conference, pp. 1-36. Dubai.

MASSON, J.R., Baati, M. and Seyfried, E. (2010) Quality and Quality Assurance in Vocational Education and Training in the Mediterranean Countries: lessons from the European approach. European Journal of Education, 45(3), pp.514-526.

Massoud, A. (2013) The Nitaqat Program. The Ministry of Labor, Kingdom of Saudi Arabi. Available at: <http://www.itu.int/net4/wsis/stocktaking/projects/FileManager/DownloadProjectFile?fileId=f0b530fb-d5f9-4916-832a-f2bfcff381ad> [Accessed 13 October 2015].

Mavromaras, K., et al. (2010) The problem of overskilling in Australia and Britain. The Manchester School, 78(3), pp.219-241.

McDonagh, K.J. and Paris, N.M. (2012) The leadership labyrinth: career advancement for women. Frontiers of Health Services Management, 28(4), pp. 22-28.

McGahern, R. (2008) Analysing the skills gap. Training journal. Available at: < https://www.thefreelibrary.com/Analysing+the+skills+gap%3A+top+of+the+agenda+at+this+year%27s+Infobasis...-a0188352906> [Accessed 21 February 2015].

McGrath, S. (2012a) Building new approaches to thinking about vocational education and training and development: Policy, theory and evidence. International Journal of Educational Development, 32(5), pp.619-622.

McGrath, S. (2012b) Vocational education and training for development: A policy in need of a theory?. International Journal of Educational Development, 32(5), pp.623-631.

McGuinness, S., Pouliakas, K., and Redmond, P. (2017) International Labour Organization. How Useful is the Concept of Skills Mismatch?. Available at: <http://www.ilo.org/wcmsp5/groups/public/---ed_emp/---ifp_skills/documents/publication/wcms_552798.pdf> [Accessed 22 December 2017].

McGuinness, S., Pouliakas, K. and Redmond, P. (2018). SKILLS MISMATCH: CONCEPTS, MEASUREMENT AND POLICY APPROACHES. *Journal of Economic Surveys*.

McKay, L. (2017) Is there a difference between skills & competencies?. Available at <http://resources.hrsg.ca/blog/is-there-a-difference-between-skills-competencies> [Accessed 22 December 2017].

Mellahi, K. (2007) The effect of regulations on HRM: private sector firms in Saudi Arabia. The International Journal of Human Resource Management,18(1), pp.85-99.

Mellahi, K., and Wbod, G. T. (2013). Management in Saudi Arabia. In Human resource management in developing countries, edited by Budhwar P. S. & Debrah Y. A. Routledge Research in Employment Relations.

Metcalf, B. D. (2008) Women, management and globalization in the Middle East Journal of Business Ethics, 83 (1), pp.85-100.

Miles, J., & Gilbert, P. (Eds.). (2005). *A handbook of research methods for clinical and health psychology*. Oxford University Press on Demand.

Miles, M.B., Huberman, A.M. and Saldana, J. (2013) *Qualitative data analysis.* London: Sage.

Mingers, J. (2014) *Systems thinking, critical realism and philosophy: A confluence of ideas*. London: Routledge.

Ministry of Communications and Information Technology (MCIT) (2017) The Kingdom Demonstrates Its Experience in Digital Certification on the International Conference On E-Commerce. Available at: <http://www.mcit.gov.sa/en/media-center/news/91778> [Accessed 6 March 2018].

Ministry of Economy and Planning (MEP) (2005) the Eighth Development Plan 2005 –2009, Ministry of Economy and Planning

Ministry of Economics and Planning (2009) Achievement of the Development Plans Facts and Figures Twenty-Fifth Issue 1390-1429H 1970-2008G. Kingdom of Saudi Arabia, Ministry of Economics and Planning. 2008. Retrieved April 30, 2009.

Ministry of Economy and Planning (2010) the Ninth Development Plan 2010 –2014, Ministry of Economy and Planning

Ministry of Economy and Planning (2015) The Tenth Development Plan 2015 –2019, Ministry of Economy and Planning, Saudi Arabia.

Ministry of Education (2017) Initiatives and Projects. Available at: <https://www.moe.gov.sa/en/TheMinistry/Education/Pages/InitiativesandProjectsofTheMinistryofEducation.aspx> [Accessed 30 December 2017].

Ministry of Higher Education (MoHE) (2010), General Department for Planning and Statistics, Ministry of Higher Education's Plan to Achieve Excellence in Science and Technology. Available at: <https://departments.moe.gov.sa/PlanningInformation/RelatedDepartments/PlanningandStatistics/Documents/plans_to_achieve_excellence.pdf> [Accessed 30 November 2017]

Ministry of Labor KSA (2015) New Economy: Background Paper on the Saudi Labor Market. USA: Harvard University. Available at: <http://epod.cid.harvard.edu/files/epod/files/hks-mol_background_paper_-_full_-_april_2015.pdf> [Accessed 30 December 2016].

Ministry of Labour and Social Development (MLSD) (2016) Saudi Arabia Labour Market Report 2016. Available at: <https://www.google.co.uk/search?source=hp&ei=m8kKW8ToM9GQkwXd6KMw&q=Ministry+of+Labour+and+Social+Development+%282016%29+Saudi+Arabia+Labour+Market+Report+2016&oq=Ministry+of+Labour+and+Social+Development+%282016%29+Saudi+Arabia+Labour+Market+Report+2016&gs_l=psy-ab.3...1337.1337.0.2211.1.1.0.0.0.0.56.56.1.1.0....0...1.2.64.psy-ab..0.0.0....0.JmIfF2fissc> [Accessed 12 April 2017].

Mogensen, F., and Schnack, K. (2010) The action competence approach and the 'new' discourses of education for sustainable development, competence and quality criteria. Environmental Education Research, 16,(1), pp.59-74.

Movenpick Group (2017) Careers at Movenpick. Available at: <http://group.movenpick.com/jobs/lehrstellen/?lang=en> [Accessed 28 October 2017].

Movenpick (2017) Learn and develop with us. Available at: <https://www.movenpick.com/en/careers/training/> [Accessed 28 October 2017].

Mouzakitis, G. S. (2010) The role of vocational education and training curricula in economic development. Procedia-Social and Behavioral Sciences, 2(2), pp.3914-3920.

Naseem, S. and Dhruva, K. (2017) Issues and Challenges of Saudi Female Labor Force and the Role of Vision 2030: A Working Paper. International Journal of Economics and Financial Issues, 7(4), pp.23-27.

Nashawi, I. S., Malallah, A., and Al-Bisharah, M. (2010) Forecasting world crude oil production using multicyclic Hubbert model. Energy & Fuels, 24(3), pp.1788-1800.

National Built Heritage Forum (NBHF) (2017) Introduction. Available at: http://www.nbhf.org.sa/english/NewsIndexEn.aspx> [Accessed 14 February 2018].

Nilsson, A. (2010) Vocational education and training–an engine for economic growth and a vehicle for social inclusion?. International Journal of Training and Development, 14(4), pp.251-272.

Nour, S.M. (2016). *Technological Change and Skill Development in Arab Gulf Countries*. Springer.

Great Britain. National Skills Task Force (NSTF). (1998). Towards a national skills agenda: First report of the National Skills Task Force. London: Department for Education and Employment.

Numbeo (2017) Cost of Living in Riyadh. Available at: <https://www.numbeo.com/cost-of-living/in/Riyadh> [Accessed 29 November 2017].

OBESSU (2013) Position Paper. The Dual VET System. Available at: <https://www.obessu.org/site/assets/files/1312/2013_-_position_paper_on_the_dual_vet_system.pdf> [Accessed 27 October 2015].

OCED (2012) Survey of Adult Skills (PIAAC). Available at: <http://www.oecd.org/skills/piaac/> [Accessed 12 July 2016].
OECD (1996) The Knowledge-based Economy. Available at: <https://www.oecd.org/sti/sci-tech/1913021.pdf> [Accessed 16 June 2014].

OECD (2011) Towards an OECD Skills Strategy. Available at: <http://www.oecd.org/edu/47769000.pdf> [Accessed 04 August 2015].

OECD (2016a) Skills Matter: Further Results from the Survey of Adult Skills, OECD Skills Studies, OECD Publishing, Paris. Available at: <http://dx.doi.org/10.1787/9789264258051-en> [Accessed 20 October 2017].

OECD (2016b) Investing in Youth: Sweden. OECD Publishing, Paris. Available at: <https://www.oecd-ilibrary.org/social-issues-migration-health/investing-in-youth-sweden_9789264267701-en> [Accessed 20 October 2017].

OECD (2017a) Future of work and skills. Available at: <http://www.oecd.org/els/emp/wcms_556984.pdf> [Accessed 30 November 2017].

OECD (2017) Policy Statement - Tourism Policies for Sustainable and Inclusive Growth. Available at: <http://www.oecd.org/cfe/tourism/OECD-Policy-Statement-Tourism-Policies-for-Sustainable-and-Inclusive-Growth.pdf> [Accessed 5 March 2018].

Oketch, M. (2017). Cross-country comparison of TVET systems, practices and policies, and employability of youth in Sub-Saharan Africa. *Vocational Education and Training in Sub-Saharan Africa*, p.25.

Orlikowski, W. J. (1993) Case tools as organizational change: Investigating incremental and radical changes in systems development. MIS quarterly, pp.309-340.

Othman, S.M. (2017) Job Localization Policy in Saudi Arabia: Determining its Effect on Employment and Economy. Business and Management Horizons, 5(1), p.12.

Oxford Business Group (2016) The Report: Saudi Arabia 2016. Education & Training. Expanding the role of the private sector in Saudi Arabia's education and training sector. Available at:<https://oxfordbusinessgroup.com/overview/time-change-focus-beginning-shift-towards-expanding-role-private-sector-developing-education> [Accessed 2 February 2018]

Page, R.; Hillage, J. (2006) Vocational Education and Training in the UK. Strategies to overcome skill gaps in the workforce. Institute for Employment Studies, Brighton. Available at: https://bibliothek.wzb.eu/pdf/2006/i06-102.pdf [Accessed 11 April 2014]

Palmer, R. (2009) Skills development, employment and sustained growth in Ghana: Sustainability challenges. International Journal of Educational Development, 29(2), pp.133-139.

Parker, C. (2017) World Economic Forum. At last, Saudi women have won the right to drive. Available at: <https://www.weforum.org/agenda/2017/09/saudi-women-win-the-right-to-drive/> Accessed 28 December 2017].

Parry, S.R. (1996). The Quest for Competence. *Training Magazine*, July, 1996, pp48-56.

Parsons, D. J., Hughes, J., Allinson, C., and Walsh, K. (2009) The training and development of VET teachers and trainers in Europe. Modernising vocational education and training, 2, pp.73-156.

Peck, J.R. (2017). Can hiring quotas work? The effect of the Nitaqat program on the Saudi private sector. *American Economic Journal: Economic Policy*, *9*(2), pp.316-47.

Pennington, R. (2017) Saudi plans major overhaul to poorly performing education system. Available at: <https://www.thenational.ae/uae/saudi-plans-major-overhaul-to-poorly-performing-education-system-1.683557> [Accessed 29 December 2017].

Pilz, M. (2007) Two countries—one system of vocational education? A comparison of the apprenticeship reform in the commercial sector in Switzerland and Germany. Compare: A Journal of Comparative and International Education, 37(1), pp.69-87.

Pilz, M. (2016) Typologies in Comparative Vocational Education: Existing Models and a New Approach. Available at: <https://www.researchgate.net/profile/Matthias_Pilz/publication/297605784_Typologies_in_Comparative_Vocational_Education_Existing_Models_and_a_New_Approach/links/58135c3c08aeffbed6bc1f08/Typologies-in-Comparative-Vocational-Education-Existing-Models-and-a-New-Approach.pdf> [Accessed 19 March 2017].

Powell, J.J. and Solga, H., 2008. Internationalization of vocational and higher education systems: A comparative-institutional approach.

Prokop, M. (2003). Saudi Arabia: The politics of education. *International Affairs*, *79*(1), pp.77-89.

Psacharopoulos, G. (1997) Vocational education and training today: challenges and responses1. Journal of vocational education and training, 49(3), pp.385-393.

Puckett, J.; Davidson, J.; Lee, E. (2012) Vocational Education: The Missing Link in Economic Development. Boston Consulting Group. Available at: <https://www.bcg.com/publications/2012/vocational-education-missing-link-economic-development.aspx> [Accessed 25 October 2017].

PWC (2018) Saudi Arabia eases expat levy requirement for "smaller" entities. Available at: <https://www.pwc.com/m1/en/services/tax/me-tax-legal-news/2018/saudi-arabia-eases-expat-levy-requirement-smaller-entities.html> [Accessed 26 April 2018].

Quintini, G. (2011) OECD Social, Employment and Migration Working Papers No.121. Over-qualified or Under-skilled: A Review of Existing Literature. Available at: <http://www.oecd.org/els/48650026.pdf> [Accessed 13 June 2015].

Quintini, G., (2011) Right for the Job: Over-qualified or Under-skilled?. *OECD* Employment Outlook Available at: <http://www.oecd.org/employment/emp/EMO%202011%20Chap%204%20ENG.pdf> [Accessed 3 May 2015].

Qureshi, R., (2014) Human resources development and the status of women labor force in Saudi Arabia: a critical analysis. International Journal of Current Research and Academic Review, 2(4), pp.144-155.

Rainbird, H. (1990) Training Matters: union perspectives on industrial restructuring and training. Basil Blackwell.

Rajan, S.I. (2018) Demography of the Gulf Region. In South Asian Migration in the Gulf (pp. 35-59). Palgrave Macmillan, Cham.

Ramady, M.A. and Saee, J. (2007) Foreign direct investment: A strategic move toward sustainable free enterprise and economic development in Saudi Arabia. Thunderbird International Business Review, 49(1), pp.37-56.

Ramady, M.A. (2010) Population and demographics: saudization and the labour market. In The Saudi Arabian Economy, Springer, Boston, MA, pp. 351-393.

Ramady, M. A. (2010) The Saudi Arabian economy: Policies, achievements, and challenges. Springer Science & Business Media.

Ramady, M. (2013). Gulf unemployment and government policies: Prospects for the Saudi labour quota or Nitaqat system. *International Journal of Economics and Business Research*, *5*(4), pp.476-498.

Randeree, K. (2012) Workforce Nationalization in the Gulf Cooperation Council States. Center for International and Regional Studies, Georgetown University, School of Foreign Service in Qatar.

Rees, C. J., Mamman, A., and Braik, A. B. (2007) Emiratization as a strategic HRM change initiative: case study evidence from a UAE petroleum company. The International Journal of Human Resource Management, 18(1), pp.33-53.

Richardson, S. (2007) What Is a Skill Shortage?. National Centre for Vocational Education Research Ltd. PO Box 8288, Stational Arcade, Adelaide, SA 5000, Australia.

Richards, A., Waterbury, J., Cammett, M. and Diwan, I. (2013) A political economy of the Middle East. Westview Press.

Robson, C. (2002) *The analysis of qualitative data.* London: Blackwell.

Robson, C. (2011) *Real world research: A resource for users of social research methods in applied settings,* 3rd edn. West Sussex: John Wiley & Sons.

Rose, D. and Harrison, E. eds. (2014) Social class in Europe: An introduction to the European socio-economic classification. Routledge.

Rudolphi, F. (2014) Educational inequalities in Sweden: Past, present and future in a comprehensive school system? Scuola democratica, (2), pp.0-0. ISSN 1129-731X

Saddi, J., Sabbagh, K. and Shediac, R. (2009) The Challenge of Balance. IdeationCenter Available at: <http://www.ideationcenter.com/media/file/challenges_of_balance.pdf> [Accessed 26 September 2014].

Sadi, M.A. and Al-Buraey, M.A. (2009) A framework of the implementation process: The case of Saudization. *International Management Review*, *5*(1), p.70.

Sadi, M.A. and Henderson, J.C. (2005) Local versus Foreign Workers in the Hospitality and Tourism Industry: A Saudi Arabian Perspective. Cornell Hotel and Restaurant Administration Quarterly, 46(2), pp.247-257.

Sadi, M., Al-Buraey, M. and Mustafa, R., (2013) NATIONALIZATION OF LABOR MARKET IN SAUDI ARABIA: A FOCUS ON HOSPITALITY AND TOURISM. *International Journal of Management & Human Resources*, *1*(1).

SAGIA (2017) Colleges of Excellence. Available at: <https://www.sagia.gov.sa/en/InvestorServices/GovernmentSupport/Pages/CollegesofExcellence.aspx> [Accessed 3 January 2017].

Sands, R.G., Bourjolly, J. and Roer-Strier, D. (2007) Crossing cultural barriers in research interviewing. *Qualitative Social Work*, *6*(3), pp. 353-372.

Saudi Gazette (2016) Unemployment facts and figures. Available at: http://saudigazette.com.sa/article/153083/Unemployment-facts-and-figures> [Accessed 18 June 2016]

Saudi Government (2002). Vision symposium on Saudi economy (2020). Paper presented at a symposium organized by the Saudi government, October 19–23.

Saudi Government (2003) First national report on human development. 2003. Al-Riyadh: Saudi Government.

Saunders, M.N. and Lewis, P. (2012) Doing research in business & management: An essential guide to planning your project. Pearson.

Saunders, M., Lewis, P., and Thornhill, A. (2012) Research Methods for Business Students (6th ed.). Harlow, England ; New York: Pearson.

Saunders, M.N.K. and Tosey, P.C. (2013) The layers of research design. Rapport, (Winter), pp.58-59.

Saunders, M. L., Lewis, P. and Thornhill, A. (2016) *Research methods for business students.* 7 edn. Harlow: Pearson Education.

Saunders, B., Sim, J., Kingstone, T., Baker, S., Waterfield, J., Bartlam, B., Burroughs, H. and Jinks, C. (2017). Saturation in qualitative research: exploring its conceptualization and operationalization. *Quality & Quantity*, pp. 1-15.

Saudi Commission for Tourism & Antiquities (SCTA) (2014). SCTA Budget (published 5th of June 2014). available at: <https://scth.gov.sa/en/TourismInvestment/SupportTourismInvestment/Documents/Touristic_investment_eng.pdf> [Accessed: 30 October, 2016]

Saudi Commission for Tourism & Heritage (2016) Tourism Licensing. Available at: <https://scth.gov.sa/en/TourismInvestment/TourismLicensing/Pages/default.aspx> [Accessed 17 August 2017].

Saudi Commission for Tourism & Heritage (2017) General Presidency for the Promotion of Virtue and Prevention of Vice. Available at: <https://scth.gov.sa/en/ProgramsActivities/Programs/Pages/TourismConceptsAwarenessProject.aspx> [Accessed 12 November 2017].

Saudi Commission for Tourism & Heritage. (2017) Live Saudi Arabia. Available at: <https://scth.gov.sa/en/Programs-Activities/Programs/Pages/LiveSaudi.aspx>. [Accessed 12 November 2017].

Saudi Commission for Tourism & Heritage (2017) Responsible Development. Available at: <https://scth.gov.sa/en/mediaCenter/ResponsibleDevelopment/Pages/default.aspx> [Accessed 12 November 2017].

Saudi Commission for Tourism & Heritage (2017) Smile. Available at: <https://scth.gov.sa/MediaCenter/ResponsibleDevelopment/Documents/Partnership.pdf> [Accessed 12 November 2017].

Saudi Commission for Tourism & Heritage (2017) Tamkeen Program. Available at: <https://scth.gov.sa/en/Programs-Activities/Programs/Pages/TamkeenProgram.aspx> [Accessed 12 November 2017].

Saudi Commission for Tourism & Heritage (2017) Tourism and Antiquities Security Forum. Available at: <https://scth.gov.sa/en/mediaCenter/Pages/Tourism-and-Antiquities-Safety-and-Security-Forum.aspx> [Accessed 12 November 2017].

Saudi Commission for Tourism & Heritage (2017) Tourism Enriches. Available at: <https://scth.gov.sa/en/Programs-Activities/Programs/Pages/TourismEnriches.aspx> [Accessed 12 November 2017].

Saudicam.com. Available at: <http://www.saudimac.com/2012/11/free-ios-and-android-development-course-in-riyadh/> [Assessed 7 July 2017]

Saudi Skills Standards (SSS) (2017) About Saudi Skills Standards. Available at: <https://www.bayt.com/en/company/saudi-skills-standards-1582815/> [Accessed 23 May 2017].

Saudi Tourism (2017) Saudi Tourism. Available at: <http://sauditourism.sa> [Accessed 12 November 2017].

Saudi Travel and Tourism Investment Market (STTIM) (2017) 10 Years of Success. Available at: <http://www.sttim.com.sa/en/Exhibition/Pages/visitor-6.aspx> [Accessed 12 November 2017].
Sayer, A. (2000) *Realism and social science*. London: Sage Publications.

Sayer, A. (2004). Why critical realism? in Fleetwood, S. and Ackroyd, S. (eds.), *Critical realist applications in organisation and management studies*, London: Routledge, pp. 6-20.

Schultz, T.W. (1961) Investment in human capital. American Economic Review. 51(1), pp1–17.

Sfakianakis, J. (2011) Saudi youth struggle to find work raises urgency for reform. Arab News, 17.

Shah, C., and Burke, G. (2005) Skills shortages: Concepts, measurement and policy responses. Australian Bulletin of Labour. National Institute of Labour Studies, vol. 31(1), pp.44-71.

Sifuna, D. N. (1992) Prevocational subjects in primary schools in the 8-4-4 education system in Kenya International Journal of Education Development. 12(2), pp. 133-145.

Silverman, D. (2016) *Qualitative research.* London: Sage Publications.

Simpson, J.S. (2016) Reflections: Rethinking the Meaning of Competence. Journal of Cancer Education, 33, pp.238-241.

Smith, C. and Elger, T. (2014) Critical realism and interviewing subjects. *Studying organizations using critical realism. A practical guide*, pp. 109-131.

Skills Panorama (2016) Analytical Highlights. Skills Challenges in Europe. Available at: <https://www.google.com.eg/url?sa=t&rct=j&q=&esrc=s&source=web&cd=3&ved=0ahUKEwjWwae_7-XYAhWI6RQKHdr-DKwQFgg2MAI&url=http%3A%2F%2Fskillspanorama.cedefop.europa.eu%2Fen%2Fprintpdf%2Fanalytical_highligths%2Fskills-challenges-europe-2016&usg=AOvVaw3I7Bn34iHQzTJuu3wFCMfQ> [Accessed 17 January 2015].

Smith, E. (2006) A woman's work is never certificated? How the implementation of nationally recognized training in workplaces helps women get qualifications. Journal of Vocational Education and Training, 58(4), pp. 531-549.

Stake, R.E. (2000) Case Studies, in Denzin, N.K. and Lincoln, Y.S. (eds.) *Handbook of qualitative research.* California: Sage Publications, pp. 435-454.

STC (2017) Huawei Academy. Available at: <https://www.stc.com.sa/wps/wcm/connect/english/stc/AchievementsAndImpactItems/huawei-academy> [Accessed 23 November 2017].

Sthalekar, R. (2017) Aranca. Saudi Labour Market Challenges. Available at: <https://www.aranca.com/knowledge-library/articles/investment-research/saudi-labour-market-challenges> [Accessed 5 August 2017].

Stoevska, V. (2017) Qualification and Skills Mismatch: Concepts and Measurement. ILO International Conference on Jobs and Skills Mismatch. Available at: <http://www.oitcinterfor.org/sites/default/files/Valentina%20Stoevska_StatsILO.pdf> [Accessed 6 February 2018].

Strietska-Ilina, O. (2008) Identifying skill needs for the future. From research to policy and practice: Cedefop Reference series, 52.

Sturgess, G. (2012) Skills vs. Competencies. What's the Difference?. Available at <http://www.talentalign.com/skills-vs-competencies-whats-the-difference/> [Accessed 16 October 2014].

Sultana, R.G. and Watts, A.G. (2008) Career guidance in the middle east and north Africa. International Journal for Educational and Vocational Guidance, 8(1), pp.19-34.

Sutherland, J. (2012) Qualifications mismatch and skills mismatch. Education + Training, 54(7), pp.619-632.

TAQAT (2017) TAQAT-Tamheer (On-the-Job Training). Available at: <https://www.taqat.sa/en/web/guest/tamheer> [Accessed 28 October 2017].

Technical and Vocational Training Corporation (TVTC) (2015) Annual Report 1436-1437H. Technical and Vocational Training Corporation, Kingdom of Saudi Arabia
Technical and Vocational Training Corporation (2016) Annual Report 2015. Technical and Vocational Training Corporation, Riyadh. Available at: <www.tvtc.gov.sa> [Accessed 27 September 2016].

Terada, M. (2012) Challenges of Vocational Education and Career Education in High Schools in Japan–From the Viewpoint of Career-competency Formation for Transition. In The Future of Vocational Education and Training in a Changing World (pp. 96-112). VS Verlag für Sozialwissenschaften.

The Business Year. 2017. Saudi Citizens Training for Technical and Vocational Work. Available at: <https://www.thebusinessyear.com/saudi-arabia-2017/he-dr-ahmed-bin-fahad-al-fahaid-governor-tvtc/vip-interview> [Accessed 21 May 2018]

The New Arab (2017) Saudi Arabia to promote 'decent' jobs for women. Available at: <https://www.alaraby.co.uk/english/society/2017/3/15/saudi-arabia-to-promote-decent-jobs-for-women> [Accessed 13 July 2017].

The World Bank (2007). Economic developments and prospects: Job creation in an era of high growth (Middle East and North Africa Region). Available at: <http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2007/09/19/000310607_20070919104022/Rendered/PDF/40894020071Eco1d1Prospects01PUBLIC1.pdf> [Accessed 21 February 2015].

The World Bank (2009) Reshaping Economic Geography. Available at: < https://openknowledge.worldbank.org/handle/10986/5991> [Accessed 15 April 2018]

The World Bank (2017) Labor force participation rate, female (% of female population ages 15+) (modeled ILO estimate). Available at:< https://data.worldbank.org/indicator/SL.TLF.CACT.FE.ZS?locations=SA> [Accessed 17 December 2107]

The World Bank (2018) Saudi Arabia's Economic Outlook - April 2018. Available at: <http://www.worldbank.org/en/country/gcc/publication/economic-outlook-april-2018-ksa> [Accessed 22 June 2018]

Thunqvist, D.P., and Hallqvist, A. (2014) The current state of the challenges for VET in Sweden. Available at: <http://nord-vet.dk/indhold/uploads/report1b_se.pdf> [Accessed 13 April 2015].

Thunqvist, D.P. (2015) Bridging the gaps: Recent reforms and innovations in Swedish VET to handle the current challenges. Available at: <http://nord-vet.dk/indhold/uploads/Innovations-in-VET-in-Sweden-2015.pdf> [Accessed 20 May 2016].

Tlaiss, H.A. (2014b) Between the traditional and the contemporary: careers of women managers from a developing Middle Eastern country perspective, International Journal of Human Resource Management, 25(20), pp. 2858-2880.

Tlaiss, A.T., and Elamin, A. (2016) Human resource management in Saudi Arabia, in Budhwar, P.S. and Mellahi, K. (ed.) Handbook of Human Resource Management in the Middle East. Northampton: Sage, pp.141-156.

Trochim, W.M. (2005) *Research methods: The concise knowledge base.* Cincinnati: Atomic Dog Publishing.

Trumpe, D. (2015) Women in the Gulf ICT industry - leading regional practices. Pedersen and Partners. Available at: <https://www.pedersenandpartners.com/news/women-gulf-ict-industry-leading-regional-practices> [Accessed 07 July 2016].

Tsang, M. C. (1997) The costs of vocational training. International Journal of Manpower 18(1/2), pp.63-89.

Tsang, E. W. (1998). Inside story: Mind your identity when conducting cross national research. *Organization studies*, *19*(3), 511-515.

Technical and Vocational Training Corporation (TVTC) (2012). Expanding and Improving Vocational and Technical Education in Kingdom of Saudi Arabia. Available at: <http://www.educationinvestor.co.uk/Uploads/DanielT2014/TVTC-RFI2012Saudi-Arabia.pdf> [Accessed 28 November 2014].

UKSACB (2017) King Abdullah Scholarships Program. Available at: <http://www.uksacb.org/uk-en1313/page/king-abdullah-scholarships-program> [Accessed 10 January 2017].

UNDP (2010) Umbrella Programme for the Saudi Commission for Tourism & National Heritage. Available at: <http://www.sa.undp.org/content/saudi_arabia/en/home/operations/projects/human_development/40801.html> [Accessed 5 June 2016].

UNESCO (2006) What is TVET?. Available at: <http://www.unevoc.unesco.org/go.php?q=more+about+What+is+TVET&context=> [Accessed 9 January 2013].

UNESCO-UNEVOC (2006) Participation in Formal Technical and Vocational Training Programmes Worldwide. An Initial Statistical Study, UNESCO Institute for Statistics (UIS), Montreal. Available at: <http://unesdoc.unesco.org/images/0014/001496/149652e.pdf> [Accessed 6 October 2014].

UNESCO (2012) W*orld TVET database - country profiles Saudi Arabia*. Available at: <http://www.unevoc.unesco.org/go.php?q=World+TVET+Database&ct=SAU> [Accessed 3 February 2018].

UNESCO (2013a) Technical and Vocational Education and Training. Education Sector Technical Notes. Available at: <http://unesdoc.unesco.org/images/0022/002221/222129e.pdf> [Accessed 7 July 2015].

UNESCO (2013b) Tackling Youth Unemployment through TVET. Report of the UNESCO-UNEVOC online conference. Available at: <http://unesdoc.unesco.org/images/0022/002255/225531e.pdf> [Accessed 7 July 2015].

UNESCO (2014) Proposed indicators for assessing technical and vocational education and training. Inter-Agency Working Group on TVET Indicators. Available at: <http://unesdoc.unesco.org/images/0026/002606/260674E.pdf> [Accessed 7 July 2015].

UNESCO (2016a) Strategy for Technical and Vocation Education and Training (TVET) (2016-2021). Available at: <http://unesdoc.unesco.org/images/0024/002452/245239e.pdf> [Accessed 27 July 2017].

UNESCO (2016b) Enhancing Relevance in TVET. Review of Progress in the Asia-Pacific since 2012. Available at: <http://unesdoc.unesco.org/images/0024/002433/243365E.pdf> [Accessed 27 July 2017].

UNESCO (2017) World TVET Database - Country Profiles Saudi Arabia. Available at: <http://www.unevoc.unesco.org/go.php?q=World+TVET+Database&ct=SAU> [Accessed 3 February 2018].

UNESCO-UNEVOC (2017) Diversifying the source of funding for TVET. Mobilizing the means to achieve the 2030 Agenda for Sustainable Development. Available at: <http://www.unevoc.unesco.org/up/vc_finance_background.pdf> [Accessed 3 February 2018].

UNESCO (2018) Quality Assurance in TVET. Available at: <https://unevoc.unesco.org/tvetipedia.php?&tx_drwiki_pi1%5Bkeyword%5D=Quality%20assurance%20in%20TVET/> [Accessed: 21 June 2018]

United States Agency for International Development (USAID) (2011). Afghanistan technical and vocational education training (TVET) providers inventory. Kabul, Afghanistan: Afghanistan Small and Medium Enterprise Development Project

Van der Meer, P.H. (2014). Gender, unemployment and subjective well-being: Why being unemployed is worse for men than for women. *Social Indicators Research*, *115*(1), pp.23-44.

Van Teijlingen, E.R. and Hundley, V. (2001) The importance of pilot studies. *Social research update*, *35*(4), pp. 1-4.

Vision 2030 (2016) Vision 2030. Available at: <vision2030.gov.sa/download/file/fid/417> [Accessed 11 January 2017].

Wahba, M. 2010. Technical and Vocational Education and Training (TVET) Challenges and Priorities in Developing Countries. UNEVOC.UNESCO. Available at: <http://www.unevoc.unesco.org/e-forum/TVET_Challenges_and_Priorities_in_Developing_Countries.pdf> [Accessed 2 March 2015].

Wang, Y., 2014. Education policy reform trends in G20 members. Springer Science & Business Media.

Wansink, K. (2016). Saudi Arabia - Telecoms, Mobile and Broadband - Statistics and Analyses. Online available at: <https://www.budde.com.au/Research/Saudi-Arabia-Telecoms-Mobile-and-Broadband-Statistics-and-Analyses> [Accessed 27 December 2016].

Wanyeki, P., Kisilu, K. and Ferej, A. (2017). Training and Workplace Requirements: Strategies for Minimizing the Mismatch Gap. *African Journal of Education, Science and Technology*, *3*(3), pp.113-122.

Weaver, A. (2017) The Myth of the Skills Gap. TECHNOLOGY REVIEW, 120(5), pp.76-79.

Welch, C., & Piekkari, R. (2006). Crossing language boundaries: Qualitative interviewing in international business. *Management International Review*, *46*(4), 417-437.

Wheeler, L. (2017). TVET and the UNESCO Global Network of Learning Cities: relevance for countries in the Middle East. *International Journal of Training Research*, pp.1-10.

Wiborg, S. (2008), 'The Vocational Education and Training System in Denmark: Innovations and Results', in G. Bosch and J. Charest (eds), Vocational Training in the 21st Century: A Comparative Perspective on Systems and Innovations in Ten Countries (London, Routledge).

Wilcox, Y. 2012. An Initial Study to Develop Instruments and Validate the Essential Competencies for Program Evaluators (ECPE). Graduate School of the University of Minnesota. Available at: <https://conservancy.umn.edu/bitstream/handle/11299/132042/1/Wilcox_umn_0130E_12886.pdf> [Accessed 23 May 2018].

Wilson, C. (2012). Nitaqat in the Spotlight. Hay Group. Available at: <http://www.haygroup.com/uae/downloads/details.aspx?id=33248> [Accessed 30 May 2013].

Winch, C., & Hyland, T. (2007). If you can understand it, you deserve an NVQ level 5'-The structure and funding of vocational education in England' (eds) Guide to Vocational Education and Training (essential FE toolkit).

Winterton, J. (2012). Varieties of Competence: European Perspectives. In The Future of Vocational Education and Training in a Changing World (pp. 455-480). VS Verlag für Sozialwissenschaften.

Women's UN Report Network (WUNRN), (2007) Saudi Arabia – Daycare Centers Need for Working Saudi Mothers. Available at: <http://wunrn.com/2007/09/saudi-arabia-daycare-centers-need-for-working-saudi-mothers/> [Accessed 11 January 2017].

World Economic Forum. (2013). How Saudi Arabia can bring more women into the workforce. Available at: <https://www.weforum.org/agenda/2013/10/how-saudi-arabia-can-lead-the-way-on-women-in-the-workforce> [Accessed 6 March 2014].

World Economic Forum (eds.). (2014). Matching Skills and Labour Market Needs. Building Societal Partnerships for Better Skills and Better Jobs. Available at: <http://www3.weforum.org/docs/GAC/2014/WEF_GAC_Employment_MatchingSkillsLabourMarket_Report_2014.pdf> [Accessed 2 June 2015].

World Economic Forum (2015). The Travel & Tourism Competitiveness Report 2015. Available at: <http://www3.weforum.org/docs/TT15/WEF_Global_Travel&Tourism_Report_2015.pdf> [Accessed: 30 September, 2016]

Word Travel and Tourism Council (WTTC) (2017) Travel and Tourism Economic Impact 2017 Saudi Arabia. Available at: <https://www.wttc.org/-/media/files/reports/economic-impact-research/countries-2017/saudiarabia2017.pdf> [Accessed 17 December 2017]

Wright, B.E. (2001) Public-sector work motivation: A review of the current literature and a revised conceptual model. Journal of public administration research and theory, 11(4), pp.559-586.

Yin, R. K, (2003), Case Study Research: Design And Methods, Thousand Oaks: Sage

Yin, R.K. (2013) *Case study research: Design and methods.* London: Sage Publications.

Young, M. (2011). National vocational qualifications in the United Kingdom: their origins and legacy. Journal of Education and Work, 24(3-4), pp.259-282.

Zawya. (2016) Colleges of Excellence, Siemens sign MoU to advance vocational education and training in the Kingdom of Saudi Arabia, in line with Vision 2030. Available at: <https://www.zawya.com/mena/en/story/Colleges_of_Excellence_Siemens_sign_MoU_to_advance_vocational_education_and_training_in_the_Kingdom_of_Saudi_Arabia_in_line_with_Vision_2030__-ZAWYA20161120074819> [Accessed 3 May 2017].

Zawya. (2017) Saudi Commission for Tourism and National Heritage. Available at: <https://www.zawya.com/mena/en/company/Saudi_Commission_for_Tourism_and_National_Heritage-1001492> [Accessed 12 December 2017].

Zhao, F. (2014) Failed Efforts of Nitaqat: An Examination of the New Saudization Initiative Aimed at Easing Unemployment Issues in Saudi Arabia. Cardozo J. Int'l & Comp. L., 23, p.627.

Zirkle, C., and Martin, L. (2012). Challenges and Opportunities for Technical and Vocational Education and Training (TVET) in the United States. In The Future of Vocational Education and Training in a Changing World (pp. 9-23). VS Verlag für Sozialwissenschaften.

## Bibliography


Alsulami, H. E. (2014) A Framework for Assessing the Quality and Effectiveness of a National Employment System: A Case Study of Saudi Arabia (Doctoral dissertation, University of Central Florida, Orlando, Florida)

Al Tamimi & Co. (2016) The new tourism law and Saudi Arabia's renewed Commitment to Tourism. Available at: <http://www.tamimi.com/law-update-articles/the-new-tourism-law-and-saudi-arabias-renewed-commitment-to-tourism [Accessed 8 April 2017].

Althauser, R. P. (1989) Internal labour markets. Annual Review of Sociology, 15(1), pp.143-161.

Altonji, J. G., and Spletzer, J. R. (1991) Worker characteristics, job characteristics, and the receipt of on-the-job training. Industrial and Labour Relations Review, 45(1), pp.58-79.

Arab News (2016c) More jobs for Saudi women. Available at: <http://www.arabnews.com/node/955436/columns> [Accessed 16 October 2016]

Arab News. (2016e) Takamol to Train Saudis in Tourism. Available at: <http://www.arabnews.com/node/961926/saudi-arabia> [Accessed 27 October 2017].

Babalola, J.B. (2003) Budget preparation and expenditure control in education. In Babalola J.B. (Ed). Basic Text in Educational Planning. Ibadan Awemark Industrial Printers.

Baker, D., & LeTendre, G. K. (2005) National differences, global similarities: World culture and the future of schooling. Stanford University Press.

Baqadir, A. A. (2013) A skills gap between industrial education output and manufacturing industry labour needs in the private sector in Saudi Arabia (Doctoral dissertation, University of Glasgow).

Becker G.S. (1992) Nobel lecture: The economic way of looking at life. Journal of Political Economy, 101, pp.385-409.

Becker G.S. (1993) Human Capital: A Theoretical and Empirical Analysis with Special Reference to Education (3rd Ed.). Chicago: The University of Chicago Press.

Becker, G. S. (1981) A Treatise on the Family. Cambridge: Harvard University Press.

Becker, G. S. (2009) Human capital: A theoretical and empirical analysis, with special reference to education. University of Chicago Press.

Béduwé, C., and Giret, J. F. (2011) Mismatch of vocational graduates: What penalty on French labour market?. Journal of Vocational Behavior, 78(1), pp.68-79.

Benson, G. (1996) How much do employers spend on training? Training and Development, 50(10), pp. 56-58.

Bhaskar, R. (2013). *A realist theory of science*. London: Routledge.

Bilbao-Osorio B., Dutta S., and Lanvin B., Eds (2014) The Global Information Technology Report 2014: Rewards and Risks of Big Data. The World Economic Forum. Available at: <http://www3.weforum.org/docs/WEF_GlobalInformationTechnology_Report_2014.pdf,> [Accessed 05 July 2016].

Blundell, R., Dearden, L., and Meghir, C. (1996) The Determinants and Effects of Work-Related Training in Britain. London: Institute for Fiscal Studies.

Blundell, R., et al. (1999) Human capital investment: the returns from education and training to the individual, the firm and the economy. Fiscal studies, 20(1), pp.1-23.

Booth A. L. (1993) Private sector training and graduate earnings. Review of Economics and Statistics, 75(1), pp.164-70.

Boreham, N. (2004) A theory of collective competence: challenging the neo-liberal individualisation of performance at work. British Journal of Educational Studies, 52(1), pp.5-17.

British Council (2016) English Language Market Reports: Gulf States – Saudi Arabia. Available at:
<https://www.englishuk.com/uploads/assets/market_reports/EUKBC_English_Language_Report_Saudi_Arabia_WEB_R1.pdf> [Accessed 20 January 2017].

Bryman, A. and Bell, E. (2015) *Business research methods.* Oxford University Press, USA.

Budría, S., and Telhado-Pereira, P. (2009) The contribution of vocational training to employment, job-related skills and productivity: evidence from Madeira. International Journal of Training and Development, 13(1), pp.53-72.

Burke, G. and Rumberger, R. (1987). The Future impact of technology on work and education. London: Falmer Press.

Campion, M. A., and Berger, C. J. (1990) Conceptual integration and the empirical test of job design and compensation relationships. Personnel Psychology, 43, pp.525-553.

Canning, R. (2012) Re-conceptualising vocational education: the transition from powerful to useful knowledge. In The Future of Vocational Education and Training in a Changing World (pp. 43-61). VS Verlag für Sozialwissenschaften.

Catts, R., Falk, I., and Wallace, R. (2011) Vocational Learning: Innovative Theory and Practice, London: Springer.

CEDEFOP (2010c) The right skills for silver workers: an empirical analysis. Luxembourg: Publications office. Available at: <http://www.cedefop.europa.eu/en/news-and-press/news/right-skills-silver-workers-empirical-analysis> [Accessed 04 August 2015].

CEDEFOP (2011) Glossary – Quality in education and training/Glossar–Qualität in der allgemeinen und beruflichen Bildung/Glossaire – La qualité dans l'enseignement et la formation [Online]. Luxembourg: Publications office. Available at: <http://www.cedefop.europa.eu/en/files/4106_en.pdf> [Accessed 21 September 2014].

CEDEFOP (2015) European skills and jobs survey. Available at: <http://www.cedefop.europa.eu/en/events-and-projects/projects/european-skills-and-jobs-esj-survey> [Accessed 21 December 2017].

Clarke, L., and Westerhuis, A. (2011) Establishing equivalence through zones of mutual trust. In: Brockmann, M., Clarke, L., Winch, C. (Eds.), Knowledge, Skills and Competence in the European Labour Market. What's in a vocational qualification? Routledge, Abingdon and New York.

Colarelli, S. M., and Montei, M. S. (1996) Some contextual influences on training utilization. Journal of Applied Behavioral Science, 32(3), pp.306-322.

Corbin, J., and Strauss, A. (Eds.). (2008) Basics of qualitative research: Techniques and procedures for developing grounded theory. Sage.

Creswell, J. W. (2012) Qualitative inquiry and research design: Choosing among five approaches. Sage publications.

Crouch, C., Finegold, D., and Sako, M. (2001) Are Skills the Answer?: The Political Economy of Skill Creation in Advanced Industrial Countries: The Political Economy of Skill Creation in Advanced Industrial Countries. Oxford University Press.

Dieckhoff, M., and Steiber, N. (2011) A Re-Assessment of Common Theoretical Approaches to Explain Gender Differences in Continuing Training Participation. British Journal of Industrial Relations, 49(s1), pp. s135-s157.
Emory, C. and Cooper, D. (2003) *Business Research Methods.* Illinois: Richard D. Irwin Inc.

European Centre for the Development of Vocational Training (Cedefop), 2012. *skill mismatch. The role of the enterprise*. Office of the Official Publications of the European Union, Luxembourg.

Foster, P. J. (1965) The vocational school fallacy in development planning. Education and economic development, 7, pp.19-78.

Gehmlich, V. (2009) “Kompetenz” and “Beruf” in the context of the proposed German Qualifications Framework for Lifelong Learning. Journal of European industrial training, 33(8/9), pp.736-754.

Glaser, B. G. (2001) The grounded theory perspective: Conceptualization contrasted with description. Sociology Press.

Glaser, B. G. (1992) Emergence vs forcing: Basics of grounded theory analysis. Sociology Press.

Glaser, B. G., & Strauss, A. L. (1967) The discovery of grounded theory: Strategies for qualitative research.

Green, F. (1993) The determinants of training of male and female employees in Britain. Oxford Bulletin of Economics and Statistics, 55(1), pp.103-122.

Green, P.E. and Tull, D.S. (1970) *Research for marketing decisions.* 2nd edn. Englewood Cliffs, New Jersey: Prentice-Hall.

Greenhalgh, C., and Stewart, M. (1987) The effects and determinants of training. Oxford Bulletin of Economics and Statistics, 49(2), pp.171-190.

Greenhalgh, C, and Mavrotas, G. (1994) The role of career aspirations and financial constraints in individual access to vocational training. Oxford Economic Papers, 46, pp.579-604.

Hall, R., Bretherton, T., and Buchanan, J. (2000) " It's Not My Problem": The Growth of Non-Standard Work and Its Impact on Vocational Education and Training in Australia. National Centre for Vocational Education Research, No. 252, Australia.

Hall. R. E., and Jones, C. I. (1999) Why do some countries produce much more output per worker than others? The Quarterly Journal of Economics 114(1), pp.83-116.

Heeti, A., and Ghafour, A. (1997) Vocational education and development: Key issues, with special reference to the Arab world. International Journal of Educational Development, 17(4), pp.373-389.

Hegewisch, A., et al. (2010) Separate and not equal? Gender segregation in the labor market and the gender wage gap. IWPR Briefing Paper, 377.

Hilal, R. (2012) Vocational Education and Training for women and youth in Palestine: Poverty reduction and gender equality under occupation. International Journal of Educational Development, 32(5), pp.686-695.

Hodson, R., Hooks, G., and Rieble, S. (1994) Training in the workplace: Continuity and change. Sociological Perspectives, 37, pp.97-118.

International Monetary Fund 2012 (5-6 October) Economic prospects and policy challenges for the GCC countries. Paper prepared for the Annual meeting of Ministers of Finance and Central Bank Governors of the Gulf Cooperation Council, Riyadh, KSA.

Jackson, S. E., Schuler, R. S., and Rivero, J.C. (1987) Organizational characteristics as predictors of personnel practices. Personnel Psychology, 42, pp.727-786.

Jacobs, J. A., Lukens, M., and Useem, M. (1996) Organizational, job and individual determinants of workplace training. Social Science Quarterly, 77, pp.159-176.

Javadian, G., and Addae, I. Y. (2013) The impact of bureaucracies and occupational segregation on participation of Iranian women in the workforce. Equality, Diversity and Inclusion: An International Journal, 32(7), pp.654-670.

Kabst, R., Larsen, H., and Bramming, P. (1996) How do lean management organizations behave regarding training and development?. The International Journal of Human Resource Management, 7, pp.618-639.

Keating, J. (2008) Qualifications systems and national qualifications frameworks. In Monash University-ACER Centre for the Economics of Education and Training Annual Conference.

Keep, E., 2012. The future of vocational education and training in a changing world.

Kennedy, J., et al. (1994) The effect of trade unions on the provision of training: Australian evidence. British Journal of Industrial Relations, 32, pp.565-80.

Kahn, L.M. (2015) Skill Shortages, Mismatches, and Structural Unemployment: A Symposium.

King, K., and Martin, C. (2002) The Vocational School Fallacy Revisited: Education, Aspiration and Work in Ghana 1959-2000. International Journal of Education Development 22, pp.5-26

King, K., and Palmer, R. (2011) New trends in international cooperation. Background paper for the World Report on Technical and Vocational Education Training.

King, K., McGrath, S., and Rose, P. (2007) Beyond the basics: educating and training out of poverty. International Journal of Educational Development, 27(4), pp.349-357.

Kist, A. A., and Gibbings, P. (2010) Inception and management of remote access laboratory projects. In Proceedings of the 21st Annual Conference of the Australasian Association for Engineering Education (AaeE 2010) (pp. 138-143). Australasian Association for Engineering Education.

Knoke, D., and Kallenberg, A. L. (1994) Job training in U.S. organizations. American Sociological Review, 59(4), pp.537-546.

Kozlowski, S. W. J., and Farr, J. L., (1988) An integrative model of updating and performance. Human Performance, 1(1), pp.5-29.

Kozlowski, S. W. J., and Hults, B. M. (1987) An exploration of climates for technical updating and performance. Personnel Psychology, 40(3), pp.539-563.

Krücken, G., Kosmützky, A. and Torka, M. (2007) Towards a multiversity?: Universities between global trends and national traditions (pp. 108-131). Bielefeld: transcript.

Le Deist, F., and Winterton, J. (2015) Trade unions and workplace training in France: Social partners and VET. Trade Unions and Workplace Training. Issues and International Perspectives. New York: Routledge, pp.77-100.

Le Deist, F. D., and Winterton, J. (2005) What is competence?. Human resource development international, 8(1), pp.27-46.

Levin, H. M. (1987) Improving production through education and technology. In Burke, G. & Rumberger, R. W. (Ed.). The Future Impact of Technology on Work and Education. London: The Falmer Press

Levin, H. M., and Kelley, C. (1994) Can education do it along? Economics of Education Review 13(2), 97-108. Available at: < https://www.sciencedirect.com/science/article/abs/pii/0272775794900019> [Accessed 2 April 2016]

Mansfield, B., and Mitchell, L. (1996) Towards a competent workforce. Gower Publishing, Ltd.

McGrath, S., and Lugg, R. (2012) Knowing and doing vocational education and training reform: Evidence, learning and the policy process. International Journal of Educational Development, 32(5), pp.696-708.

McMahon W. (1999) Education and Development: Measuring the Social Benefits, New York: Oxford University Press.

Méhaut, P. (2006) Knowledge economy, learning society and lifelong learning: a review of the French literature. New society models for a new millennium, 117-135.

Mincer, J. (1974) Schooling, Experience and Earnings. New York: Columbia University Press.

Ministry of Education Statistics (2015) Portal Statistics. Available at: <https://www.moe.gov.sa/en/aboutPortal/Pages/PortalStatistics.aspx> [Accessed 10 June 2017].

Noe, R. A. (1996) Is career management related to employee development and performance?. Journal of Organizational Behavior, 17, pp.119-133.

O'Donnell, D., and Garavan, T. N. (1997) New perspectives on skill, learning and training: a viewpoint. Journal of European Industrial Training, 21(4), pp.131-137.

Oketch M.O. (2007) To vocationalise or not to vocationalise? Perspectives on current trends and issues in technical and vocational education and training in Africa. International Journal of Educational Development, 27(2), pp.220-234.

Osman-Gani, A. M. (2004) Human capital development in Singapore: An analysis of national policy perspectives. Advances in Developing Human Resources, 6(3), pp.276-287.

Paleocrassas, S., Rousseas, P., and Vretakou, V. (2003) School-to-work transition performance of 'male','female' and 'neutral' vocational streams: a gender balance sheet for vocational education graduates in Greece. Journal of Vocational Education and Training, 55(2), pp.209-222.

Panitsidou, E. A., Vastaki, M., and Valkanos, E. (2012) Vocational education and training of unemployed women in Greece: An initial approach. Procedia-Social and Behavioural Sciences, 69, pp.1729-1736.

Patiniotis, N., and Stavroulakis, D. (1997) The development of vocational education policy in Greece: a critical approach. Journal of European Industrial Training, 21 (6/7), pp.192 – 202.

Keep, M. (Ed.). (2012) The future of vocational education and training in a changing world. Spr Pring, R. (2007) 14-19 and lifelong learning: distinguishing between academic and vocational learning. In Clarke, L. and Winch, C. (Eds.), Vocational Education: international approaches, developments and systems. London: Routledge.

Reiche, D. (2010) Energy Policies of Gulf Cooperation Council (GCC) countries—possibilities and limitations of ecological modernization in rentier states. Available at: http://wwwlb.aub.edu.lb/fas/pspa/politics-sports/Documents/gcc.pdf> [Accessed 3 March 2015].

Sattinger, M. (2012) Qualitative mismatches. Foundation and Trends ® in Microeconomics, 8(1–2), pp.1-168.

Saudi Arabia Education (2017) The Saudi Arabia K-12 Education System. Available at: <http://www.saudiarabiaeducation.info/K12/Saudi-Arabia-K-12-Education-System.html> [Accessed 4 January 2018]

Saudi Arabian Monetary Agency (SAMA) (2006). Saudi Arabian Monetary Agency. Forty second annual report. Research and Statistics Department. Saudi Arabia: SAMA. Available at: <http://www.sama.gov.sa/en-US/EconomicReports/AnnualReport/Forty%20Second%20Annual%20Report.pdf> [Accessed 15 March 2017]

Schuler, R. S. (1989) Strategic human resource management and industrial relations. Human relations, 42(2), pp.157-184.

Schultz, T. (1975) The value of the ability to deal with disequilibira. Journal of Economic Literature 13(3), pp.827-846.

Sfakianakis, J. (2010) Saudi Arabia Economic. Available at: https://www.gulfbase.com/ScheduleReports/Saudi_Arabia_Economics_13012010.pdf [Accessed 19

July 2015].

Shavit, Y., and Muller, W. (2000) Vocational secondary education. European Societies, 2(1), pp.29-50.

Spek, A.A. and Velderman, E. (2013) Examining the relationship between Autism spectrum disorders and technical professions in high functioning adults. Research in Autism Spectrum Disorders, 7(5), pp.606-612.

Spence, M. (1973) Job market signalling. Quarterly Journal of Economics 87(3), pp.355-374.

Stevens, M. (1999) Human capital theory and UK vocational training policy. Oxford Review of Economic Policy, 15(1), pp.16-32.

Straka, G. A. (2004) Measurement and evaluation of competence. The foundations of evaluation and impact research. Luxembourg, pp.263-311.

Strauss, A., and Corbin, J. M. (1990) Basics of qualitative research: Grounded theory procedures and techniques. Sage Publications, Inc.

Strauss, A., and Corbin, J. M. (Eds.) (1997) Grounded theory in practice. Sage.

Strietska-Ilina, O. (2017) Skills and jobs mismatch. ILO findings from global research. Available at:
<http://www.oitcinterfor.org/sites/default/files/Olga_Strieska_skillsandjobsmismatch_0.pdf>
[Accessed 13 January 2018].

Taha, S. (2013) Expat remittances to reach SR 109 billion this year. Available at: <http://www.arabnews.com/news/457831> [Accessed 29 June 2013].
Tamheer (on the job training). Available at: <https://www.taqat.sa/en/web/guest/tamheer> [Accessed 22 September 2017].

Taylor, C. and Albasri, W. (2014) The Impact of Saudi Arabia King Abdullah's Scholarship Program in the U.S. Open Journal of Social Sciences, 2(10), p.109.

Technical and Vocational Training Corporation (2011) Annual Report 1432-1433H. Technical and Vocational Training Corporation, Kingdom of Saudi Arabia

Technical and Vocational Training Corporation (2012) Annual Report 1433-1434H. Technical and Vocational Training Corporation, Kingdom of Saudi Arabia

Technical and Vocational Training Corporation (2013) Annual Report 1434-1435H. Technical and Vocational Training Corporation, Kingdom of Saudi Arabia

Technical and Vocational Training Corporation (2014) Annual Report 1435-1436H. Technical and Vocational Training Corporation, Kingdom of Saudi Arabia

Tharenou, P. (1997) Organizational, job and personal predictors of employee participation in training and development. Applied Psychology: An International Review, 46(2), 111-134.

Tharenou, P. (2001) The relationship of training motivation to participation in training and development. Journal of Occupational and Organizational Psychology, 74(5), pp.599-621.

Thurow. L. (1975) Generating Inequality. New York: Basic Books, Inc.

Tomaševski, K. (2001) Human rights obligations: making education available, accessible, acceptable and adaptable. Raoul Wallenberg Institute of Human Rights and Humanitarian Law.

Tomaševski, K. (2006) Human rights obligations in education: the 4-A scheme. Wolf Legal Publishers (WLP).

UNESCO (2010) Guidelines for TVET Policy Review. Available at: <http://unesdoc.unesco.org/images/0018/001874/187487e.pdf> [Accessed 26 June 2014].

UNESCO (2011) revision of the international standard classification of education (iSced) Paris. <http://www.uis.unesco.org/education/documents/uneSco_gc_36c-19_iSced_en.pdf> [Accessed 03 December 2012].

UNESCO (1995) UNESCO thesaurus. Paris: UNESCO. <http://databases.unesco.org/thesaurus/> [Accessed 23 November 2007].

United Nations Industrial Development Organization (2002) UNIDO Competencies. Available at: <http://www.unido.org> [Accessed 8 December 2013].

United States Department of Labor - Bureau of Labor Statistics (1999). It takes more information to understand labor shortages. Available at: <http://www.bls.gov/opub/ted/1999/May/wk2/art03.htm> [Accessed 14 March 2015].

Useem, M. (1993). Management commitment and company policies on education and training. Human Resource Management, 32(4), pp.411-434.

U.S. Saudi Arabian Business Council (2015) Industry Sector Brief: Saudi Arabia Prioritizes Education and Training Sector for Strategic Growth. Available at: <https://www.us-sabc.org/i4a/pages/index.cfm?pageid=4411> [Accessed 30 January 2016].

Van der Meulen Rodgers, Y., and Boyer, T. (2006) Gender and racial differences in vocational education: an international perspective. International Journal of Manpower, 27(4), pp.308-320.

Veum, J. R. (1996) Gender and race differences in company training. Industrial Relations: A Journal of Economy and Society, 35(1), pp.32-43.

Winch, C. (2012). Dimensions of expertise: A conceptual exploration of vocational knowledge. A&C Black.

Xiao, J. (2002). Determinants of salary growth in Shenzhen, China: an analysis of formal education, on-the-job training, and adult education with a three-level model. Economics of Education Review, 21(6), pp.557-577.

Yee Mar, N. (2009) Strengthening TVET to Achieve Lifelong Learning for All: Historical Snapshots and Recent Initiatives in Myanmar. In: Maclean R., Wilson D. (eds) International Handbook of Education for the Changing World of Work. Springer, Dordrecht

Zula, K. J., and Chermack, T. J. (2007). Integrative literature review: Human capital planning: A review of literature and implications for human resource development. Human Resource Development Review, 6(3), pp.245-262.

**Thesis Appendix**

# Technical and Vocational Education & Training to Address Skills Mismatch and Unemployment: The Case of Saudi Arabia

By

**Maram Taweel**

June 2018

The appendix contained within this section relates to the primary data that form the foundation of this thesis's research component.

**Content**

1. Interview questions

2. Consent form sample. All 81 interviewees signed this ethical form. It was agreed to not disclose the interview transcript. These scripts will remain saved in a hard derive with the author.

3. Analysis excel sheet.

    a) ICT
    b) Tourism

## 1. Interview questions

***1- Government Sector Interview Questions***

| ***Interview Questions*** |
|---|
| *Interview question 1:* ***What is your view on the causes of unemployment among indigenous in Saudi Arabia in general?*** |
| *Interview question 2:* ***What is your view on the possible relationship between unemployment and skills of Saudi indigenous?*** |
| *Interview question 3a:* ***What is your view on the impact of the existing TVET system on employment among Saudi indigenous? (Why?)*** |
| *Interview question 3b:* **What is your view on the role TVET can play (in future) in addressing unemployment among Saudi indigenous? (Why?)** |
| *Interview question 4:* **How can TVET be improved in Saudi Arabia from different aspects (e.g. policies, legislations, culture)?** |
| *Interview question 5:* **What are the roles of various stakeholders in developing TVET and address the problem of unemployment among Saudi people? Illustrate the role of each of the following with examples: Government, TVET centres, trainers, trainees and graduates.** |
| *Interview question 6a:* **What do think of best practice in using TVET to address unemployment among Saudi indigenous?** |
| *Interview question 6b:* **In contrast can areas of weakness or difficulties in TVET be identified?** |
| *Interview question 7:* **What suitable framework can be implemented in training indigenous workers for TVET in Saudi Arabia? (only asked to Experts)** |

***2- Technical Girls' College Interview Questions***

| ***Interview Questions*** |
|---|
| *Interview question 1:* ***What is your view on the participation of Saudi women in TVET (education & jobs) in Saudi Arabia?*** |
| *Interview question 2:* ***What is your view on the extent to which the skills of Saudi women workers match the skills needed in vocational/technical jobs?*** |
| *Interview question 3a:* ***What is your view on the impact of the existing TVET system on the skills of Saudi women workers? (Why?)*** |
| *Interview question 3b:* **What is your view on the role TVET can play (in future) in addressing the skills among Saudi indigenous women? (Why?)** |
| *Interview question 4:* **How can TVET for women be improved in Saudi Arabia from different aspects (e.g. policies, legislations, culture)?** |
| *Interview question 5:* **What is the role of the various stakeholders in developing TVET to address skills required among Saudi indigenous women? Illustrate the role of each of the following with examples: Government, VET centres, trainers, trainees and graduates.** |
| *Interview question 6a:* **What do you think is best practice in qualifying Saudi indigenous women for the skills required in vocational/technical jobs? Can you provide examples?** |
| *Interview question 6b:* **In contrast, can areas of weakness or difficulties related to women workers and skills in TVET be identified?** |
| *Interview question 7:* **What suitable framework or model can be implemented in training indigenous women workers for TVET in Saudi Arabia? (only asked to Experts)** |

***3- ICT Sector Interview Questions***

| ***Interview Questions*** |
|---|
| *Interview question 1:* ***What is your view on the participation of Saudi workers in this sector in Saudi Arabia (Information & Communication Technology)?*** |
| *Interview question 2:* ***What is your view on the extent to which the skills of Saudi workers match the skills needed in this sector in Saudi Arabia (Information & Communication Technology)?*** |
| *Interview question 3a:* ***What is your view on the impact of the existing TVET system on the skills of Saudi workers? (Why?)*** |
| *Interview question 3b:* **What is your view on the role TVET can play (in future) in addressing the skills among Saudi indigenous? (Why?)** |
| *Interview question 4:* **How can TVET be improved in Saudi Arabia from different aspects (e.g. policies, legislations, culture) with a focus on this sector in Saudi Arabia (Information & Communication Technology)?** |
| *Interview question 5:* **What is the role of different groups in improving TVET to address skills required among Saudi indigenous in this sector (Information & Communication Technology)? Illustrate the role of each of the following with examples: Government, TVET centres, trainers, trainees and graduates.** |
| *Interview question 6a:* **What do you think of best practice in qualifying Saudi indigenous for the skills required in this sector (Information & Communication Technology)? Can you provide examples?** |
| *Interview question 6b:* ***What are the areas of weakness or difficulties in relation to worker skills be identified with a focus on this sector in Saudi Arabia (Information & Communication Technology)?*** |
| *Interview question 7:* **What framework/model would be suitable for TVET in Saudi Arabia that can be implemented in training indigenous workers with a focus on this sector in Saudi Arabia (Information & Communication Technology)? (only asked to Experts)** |

*4- Tourism Sector Interview Questions*

| **Interview Questions** |
| --- |
| Interview question 1: **What is your view on the participation of Saudi workers in this sector in Saudi Arabia (Tourism)?** |
| Interview question 2: **What is your view on the extent to which the skills of Saudi workers match the skills needed in this sector in Saudi Arabia (Tourism)?** |
| Interview question 3a: **What is your view on the impact of the existing TVET system on the skills of Saudi workers? (Why?)** |
| Interview question 3b: **What is your view on the role TVET can play (in future) in addressing the skills among Saudi indigenous? (Why?)** |
| Interview question 4: **How can TVET be improved in Saudi Arabia from different aspects (e.g. policies, legislations, culture) with a focus on this sector in Saudi Arabia (Tourism)?** |
| Interview question 5: **What is the role of different groups in improving TVET to address skills required among Saudi indigenous in this sector (Tourism)? Illustrate the role of each of the following with examples: Government, TVET centres, trainers, trainees and graduates.** |
| Interview question 6a: **What do you think of best practice in qualifying Saudi indigenous for the skills required in this sector (Tourism)? Can you provide examples?** |
| Interview question 6b: **What are the areas of weakness or difficulties in relation to worker skills be identified with a focus on this sector in Saudi Arabia (Tourism)?** |
| Interview question 7: **What framework/model would be suitable for TVET in Saudi Arabia that can be implemented in training indigenous workers with a focus on this sector in Saudi Arabia (Tourism)? (only asked to Experts)** |

## 2. Consent Form

Kingston University London

# Consent Form

**Research title:** VOCATIONAL EDUCATION & TRAINING FRAMEWORK TO ADDRESS SKILLS MISMATCH:
The Case of Saudi Arabia

Thank you for considering taking part in this research. The purpose of this form is to convey a little background information about the interview and to make sure that you are still happy to participate. I would like to record the interview so that I do not miss anything you say. At any stage of the interview you can ask me to turn the recorder off or rewind it to erase anything you have said. Everything that you do say will be kept in confidence and will not be disclosed to anyone else. I will be publishing and presenting findings from my research and this may include extracts taken from your interview, along with others. It is important to point out that your identity will be kept anonymous and any details that may identify you will be excluded from any published/presented findings. You are also free to decline from answering any questions or stop the interview without having to give a reason for doing so.

If you have any questions or queries about the interview or research, please feel free to contact me at: maram.a.taweel@gmail.com Telephone: 00966505289024

You will be given a copy of this Consent Form to keep.

1 I understand that taking part is entirely voluntary and that I am free to change my mind and withdraw at any time without giving any reason. ☑

2 I agree to being interviewed and the interview being digitally recorded. ☑

3 I agree that (anonymous) quotes from my interview may be used in the report that is written about the study and in published material. ☑

4 I agree to take part in this study. ☑

| Your Name | Date | Your Signature |
|---|---|---|
| BANDAR | 15/11 | |

I confirm that I have carefully explained to the participant the nature and demands of the proposed research.

| Researcher Name | Date | Researcher Signature |
|---|---|---|
| Maram Taweel | 15/11/2015 | |

(One copy for participant and one for researcher)

Participant Identification Number:

**3. Analysis – excel sheets**

**Government analysis sector justification:**

Primary data analysis of Government sector (chapter 5) been structured by interview questions; it was different than the other analysis chapters (6 and 7). Chapter 5 was more broadly focussed on the government sector; a number of topics were discussed in response to the different questions to highlight which of these themes were most commonly being raised in order to identify them and understand their importance to the stakeholders being interviewed.

For example, the chapter were structured to use the interview questions as the headings or themes and address all interviewees' answers for each question separately. When conducting this data analysis for chapter 5, the structure was found to have a lot of cross-over, overlap and repetition across the different interview questions.

Accordingly, my supervisor advised to restructure the chapter to be consistent with other analysis chapters of ICT and Tourism sectors, based on themes emerged or derived from the data. Therefore, no excel sheets been made for government sector although thematic analysis approach applied for all my primary data analysis.

In this case the aim of the analysis was to focus on, and understand in detail, the most evident themes discussed by the interviewees. The analysis for this research is therefore structured around each of the emerging themes, rather than focusing on each interview question in turn.

The analysis material for chapter 5 can be provided when it's required.

**a. ICT**

**ICT Analysis code**

| ROLE | INTERVIEWEE |
|---|---|
| CISCO-D1 | HR Manager |
| CISCO-D2 | Pre Sales Channel System Engineer |
| CISCO-L1 | Pre Sales intern/ Trainee system engineer |
| CISCO-G1 | Pre Sales Channel System Engineer |
| CISCO-G2 | Pre Sales Channel System Engineer |
| CISCO-D3 | CEO Regional Manager KSA System |
| CISCO-G3 | Advanced Services (Network consulting Engineering) |
| CISCO-G4 | Advanced Services (Network consulting Engineering) |
| CITC-D1 | General Mnager for Brianches (Regional Manager) |
| CITC-D2 | General Administration in Planning and Project |
| CITC-D3 | Manager of National Plan Administration for Numbeing |
| CITC-D4 | Deputy Governor for Competition & legal Affairs |
| CITC-G1 | Financial and Administrative Advisor |
| CITC-G2 | General Manager For Branches (Regional Manager) |
| CITC-D6 | GM of CITC Office in Dammam and Khobar |
| CITC-D7 | HR Development Manager |
| STC-D1 | GM of HR and Training |
| STC-D2 | Training Planning Director |
| STC-D3 | Technical Training Delivery Sector Manager |
| STC-T1 | GM Training Design |
| STC-T2 | Transmission Equipment (Trainer) |
| STC-L1 | Employee Operation & Maintenance SENIOR TECHNICAL MANAGER/ TRAINEE |
| TC-L2 | Trainee in HR Services |
| STC-L3 | IT Support Business Analyist (TRAINEE) |

| Themes | Question 1<br>CONCEPTS | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | Tot | %age |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Saudi participation | Acceptable KSA employee participation | 1 | | 1 | | 1 | | | 1 | | | | 1 | | 1 | | 1 | 1 | 1 | 1 | 1 | 1 | | | | 12 | 50.00% |
| | KSA participation has increased | 1 | | | | | | | | | | | | | | | 1 | | | | | | | | | 2 | 8.33% |
| | Lack of KSA participation in VET jobs | | 1 | | 1 | | | | | 1 | 1 | | | | | | | | | | | | 1 | | 1 | 6 | 25.00% |
| | Enough Saudis in technical/admin jobs but not in hands on | | | | | | | | | | | | | 1 | | | | | | | 1 | 1 | 1 | 1 | | 5 | 20.83% |
| | Low saudi participation in private sector | | | | | | | | | | | | | | 1 | 1 | | | | | | | | | | 2 | 8.33% |
| | Saudi participation higher in operating companies than executive | | | | | | | | | | | | | | | | | | | 1 | | | | | | 1 | 4.17% |
| | Difference between participation in job types | | | | | | | | | | | | | 1 | | | | | | 1 | 1 | 1 | 1 | | | 5 | 20.83% |
| | | 1 | 1 | 1 | 1 | 1 | | | 1 | 1 | 1 | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 21 | 87.50% |
| expats | Expatriate skills are needed to fit the job needs | 1 | | | | | | | | 1 | 1 | | 1 | | | | | 1 | | | | | | | | 5 | 20.83% |
| | Expatriates learn skills more quickly | | | | | | | | | | | | | 1 | | | | | | | | | | | | 1 | 4.17% |
| | Expats work for contracted companies | | | | | | | | | | | | | | | | | | | | | | 1 | | | 1 | 4.17% |
| | expats needed to deliver training and skills | | | | | | | | | | | | | | | | | 1 | | | | | | | | 1 | 4.17% |
| | Employing expatriates is lower cost | 1 | 1 | | | | | | | | 1 | 1 | | | | | | | | | | | | | | 4 | 16.67% |
| | | 1 | 1 | | | | | | | 1 | 1 | 1 | 1 | 1 | | | | 1 | | | | | 1 | | | 9 | 37.50% |
| culture | Prestige and status are highly valued in KSA | | | | 1 | | | | | | 1 | | | | | | | | | | | | | | | 2 | 8.33% |
| | Poor Saudi work ethic | | | | | | | | | | 1 | 1 | | | | | | | | | | | | 1 | 1 | 4 | 16.67% |
| | Saudi culture does not value hands on work | | | | | | | | | | | | | | | | | | | | | | | 1 | | 1 | 4.17% |
| | People choose univeristy for wrong reasons | | | | | | | | | | | | | | | 1 | | | | | | | | | | 1 | 4.17% |
| | Poor view of vocational jobs | | | | | | | | | | | 1 | 1 | | | | | | | | | | | | 1 | 3 | 12.50% |
| | | | | | 1 | | | | | | 1 | 1 | 1 | | | 1 | | | | | | | | 1 | 1 | 7 | 29.17% |
| awareness | Saudis prefer government sector | | | | | | | | | | | | | | 1 | 1 | | | | | | | | | | 2 | 8.33% |
| | Lack of awareness of technical jobs | | | | | | | | | | | | 1 | | | | | | | | | | | | | 1 | 4.17% |
| | Lack of job security | | | | 1 | | | | | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | Low salaries causing low particiation | | 1 | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | Labour hours and shifts are unappealing | | | | | 1 | | | | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | | | 1 | | 1 | 1 | | | | | | | 1 | | 1 | 1 | | | | | | | | | | 6 | 25.00% |
| skills | Saudi skills are higher than expatriates | | | | 1 | | | | | | | | 1 | | | | | | | | | | | | | 2 | 8.33% |
| | Employees need hands-on work before high status | | | | | 1 | | | | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | Greater cooperation needed with international companies to find skills | | | | | | | | | 1 | | | | | | | | | | | | | | | | 1 | 4.17% |
| | Companies prefer university students to VET | | 1 | | | | | | | | | | | | | 1 | | | | | | | | | | 2 | 8.33% |
| | Practical experience needed for employees | | | 1 | | | | | | | | | | | | 1 | | | | | | | | | | 2 | 8.33% |
| | Companies have time and money to train | | | | | | | | | | | | | | | | | | | 1 | | | | | | 1 | 4.17% |
| | Saudi skills have increased | | | | | | 1 | | | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | Lack of specialisation and skills | | | | | | | 1 | 1 | | 1 | | | | | | | | | | | | | | | 3 | 12.50% |
| | | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | 1 | | | 1 | | | | 1 | | | | | | 12 | 50.00% |
| training | High female participation in training | | | | | | 1 | | | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | VET training quality is poor | | | | | | | 1 | | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | School education is poor | | | | | | | 1 | | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | Training provision has increased for Saudis | | | | | | | | | 1 | | | | | | | | | | | | | | | | 1 | 4.17% |
| | | | | | | | 1 | 1 | | 1 | | | | | | | | | | | | | | | | 3 | 12.50% |

| | Question 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | CONCEPTS | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | Tot | %age |
| labour market | Skills Capability Planning (based on labour market needs) | 1 | | | | | | | | | 1 | 1 | | | | | 1 | | | | | | | | | 4 | 16.67% |
| | skills are NOT matching (supply & demand- qualitative & Quantitative) | | 1 | | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | | 1 | | | 1 | | 1 | | | | 13 | 54.17% |
| | skills are matching (supply & demand- qual & Quant/ high saudizaition | 1 | | 1 | 1 | | | | | | | | | | 1 | | | 1 | 1 | | 1 | | 1 | 1 | | 9 | 37.50% |
| | curriculum is not linked to labor market | | | | | | 1 | | | | 1 | 1 | 1 | | | 1 | 1 | | | | | 1 | | | 1 | 8 | 33.33% |
| | Unifying Efforts between authorities | | | | | | 1 | | 1 | | 1 | 1 | | | | | | | | | | | | | | 4 | 16.67% |
| | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 24 | 100.00% |
| training requirements | Developing (Readiness of) VET training institutions | | | | | | | | | | | | 1 | | | | | | | | | | | | | 1 | 4.17% |
| | Balancing Practice and Theory | | | | | | 1 | | | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | poor training quality | | | | | | | 1 | | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | On the Job Training | | | | | | 1 | | | | | | | 1 | | | | | | 1 | 1 | | | | | 4 | 16.67% |
| | skills need continuous improvement | | | | | | | | | | | | 1 | 1 | 1 | | | | | | | | | | | 3 | 12.50% |
| | | | | | | | 1 | 1 | | | | | 1 | 1 | 1 | | | | | 1 | 1 | | | | | 7 | 29.17% |
| skills | skills are average | | | | | | | | | | | | | | | 1 | | | | | | 1 | | | 1 | 3 | 12.50% |
| | soft skills are weak (Languages- communication skills- commitment- attitude-self learning) | | 1 | 1 | | | | 1 | | | | 1 | 1 | | | 1 | | | | | | | | 1 | 1 | 8 | 33.33% |
| | Saudi Womn skills in ICT is lower than males | | | | | | | | 1 | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | depends from where workers are graduated | | | | | | 1 | | 1 | 1 | | | | | | 1 | | | | | 1 | | | | | 5 | 20.83% |
| | depend on expatriates if new technique | | | | | | | | | | | | | | | | | 1 | | | | | | | | 1 | 4.17% |
| | | | 1 | 1 | | | 1 | 1 | 1 | 1 | | 1 | 1 | | | 1 | | 1 | | | 1 | 1 | | 1 | 1 | 14 | 58.33% |
| job choice | ICT setor is highly desired by saudis | | | 1 | | | | | | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | Low salaries causing low particiation, more expats | | | | | | 1 | | | | | | | | | | | | | | | | 1 | | | 2 | 8.33% |
| | KSA employees don't desire vocational jobs | | | | | | 1 | | | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | Saudi culture on ICT has changed due to high pay and quick promotion in career. | | | | | | | | | | | | | | | | | 1 | | | | | | | | 1 | 4.17% |
| | admixture rules/ segregation hindiring improvement | | | | | | | | 1 | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | | | | 1 | | | 1 | | 1 | | | | | | | | | 1 | | | | | 1 | | | 5 | 20.83% |

| | Question 3a | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | CONCEPTS | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | Tot | %age |
| Cooperation with private | Building Strategic Partnerships | | | | | | 1 | | 1 | | | | | | | | 1 | | 1 | | | | | | | 4 | 16.67% |
| | there must be cooperation between privet sector and TVTC on required qualifications | | 1 | | | | | | 1 | | | | | | | | | | | | | | | | | 2 | 8.33% |
| | Organisation Participation | | 1 | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | Cisco have partnership with TVTC | | | | | | 1 | | | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | Cisco training system is linked with job requirements | | | | 1 | | | | | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | | | 1 | | 1 | | 1 | | 1 | | | | | | | | 1 | | 1 | | | | | | | 6 | 25.00% |
| TVTC problems | passive impact of existing VET system (TVTC) not meeting LM needs | | 1 | | 1 | 1 | | 1 | | | | | | 1 | | 1 | 1 | | | 1 | 1 | | 1 | | | 10 | 41.67% |
| | TVTC qualifications aren't strong enough to enter and compete in labour market | 1 | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | curriculims not meeting LM needs | 1 | 1 | | 1 | 1 | | | | | | | | | | | | | | | | 1 | | | | 5 | 20.83% |
| | bachelor degree get higher status than diploma degree and not fully matching jobs | | | | | | | 1 | | | 1 | | | | | | | | | | | | | | | 2 | 8.33% |
| | diploma qulification is not meeting LM needs | 1 | | | | | | | | | | 1 | | | | | | | | | | | | | | 2 | 8.33% |
| | practice at university not sufficient and don't provide informaition on the purpose of studying specific module | | | | 1 | | | | | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | No follow up from universities/ VET institutions with graduates/ trainees | | | | | 1 | | | | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | Procedural obstacles in TVT reduce the quality of training process | | | | | | | | | | | | | | | | 1 | | | | | | | | | 1 | 4.17% |
| | | 1 | 1 | | 1 | 1 | | 1 | | | 1 | 1 | | 1 | | 1 | 1 | | | 1 | 1 | 1 | 1 | | | 14 | 58.33% |
| TVTC positives | good impact of existing VET system (TVTC) but need improvement | | | 1 | | | 1 | | 1 | | | | 1 | | 1 | | | | 1 | | | | | | 1 | 7 | 29.17% |
| | TVTC training system getting better in the last 3-4 years | | | | | | 1 | | 1 | | | | | | | | | | | | | | | | 1 | 3 | 12.50% |
| | TVTC is excellent in the eastern region of KSA because of its connection to private sector and big difference in culture of work between eastern region people and Riyadh people | | | | | | | | | | | | | | 1 | | | | | | | | | | | 1 | 4.17% |
| | STC training system is on required specializations/ positive | | | | | | | | | | | | | | | | | 1 | 1 | 1 | | 1 | | 1 | | 5 | 20.83% |
| | | | 1 | | | 1 | | 1 | | | | 1 | | 1 | | | 1 | | 1 | 1 | | 1 | | 1 | 1 | 11 | 45.83% |
| TVTC goals | TVTC gives financial support | | 1 | | | | | | | | | | | 1 | | | | | | | | | | | | 2 | 8.33% |
| | TVTC have to be updated and increase in allowance, awareness and convincing | | | | | | | | | | | | 1 | | | | | | | | | | | | | 1 | 4.17% |
| | TVTC strives to fulfil Saudi labour market needs but challenges of expats, income | | | | | | | | | 1 | | | | | | | | | | | | | | | | 1 | 4.17% |
| | Developing (Readiness of) VET training institutions | | | | | | | | | | | | 1 | | | | | | | | | | | | | 1 | 4.17% |
| | Balancing Practice and Theory | | | | 1 | | | | | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | On the Job Training needed | | | | | | | | | | | | | | | | | 1 | | | | | | | | 1 | 4.17% |
| | soft skills are required | 1 | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | | 1 | 1 | | 1 | | | | | 1 | | | 1 | 1 | | | | 1 | | | | | | | | 7 | 29.17% |
| Saudi choices\cullture | graduates don't work in their specializations they desire administrational jobs | | | | | | | | | | | | | | 1 | | | | | | | | | | | 1 | 4.17% |
| | KSA employees don't desire vocational jobs and prefer gov or admin jobs | | | | | | | 1 | | | | 1 | | | | 1 | | | | | | | | | | 3 | 12.50% |
| | Low salaries causing low particiation among saudis | | | | | | | | | 1 | | | | | | | | | | | | | | | | 1 | 4.17% |
| | society inferior image effecting VET | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1 | 4.17% |
| | | | | | | | | 1 | | 1 | | 1 | | | 1 | 1 | | | | | | | | | 1 | 6 | 25.00% |

| | Question 3b | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | CONCEPTS | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | Tot | %age |
| Specialisations | VET can increase variety of specialisation | 1 | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | Should give more training on rare specialisation | | | | | 1 | | | | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | Practical training need to match their specialisation | | | | | | | | | 1 | | | | | | | | | | | | | | | | 1 | 4.17% |
| | | 1 | | | | 1 | | | | 1 | | | | | | | | | | | | | | | | 3 | 12.50% |
| Saudi training choices | Need more information awareness about specialisations before deeciding | | | | 1 | 1 | | | | | | | 1 | | | 1 | 1 | | | 1 | | 1 | | | | 7 | 29.17% |
| | Need for change in culture and awareness of VET | | | | | | | | | | | | | | | | | | | | | | | 1 | | 1 | 4.17% |
| | Location of trainig centres can limit choice | | | | | | | | | | | | | | | | 1 | | | | | | | | | 1 | 4.17% |
| | People choose training because it is easy | | | | | | | | | | | | | | | 1 | | | | | | | | | | 1 | 4.17% |
| | | | | | 1 | 1 | | | | | | | 1 | | | 1 | 1 | | | 1 | | 1 | | 1 | | 8 | 33.33% |
| Training provision | Financial support needed, no money for training | | 1 | | | | | | | | | | | | | | | | | 1 | | | | | 1 | 3 | 12.50% |
| | Increase in number of VET institutions | | | | | | 1 | | | | | | | 1 | | | | | | | | | | | | 2 | 8.33% |
| | | | 1 | | | | 1 | | | | | | | | | | | | | 1 | | | | 1 | | 4 | 16.67% |
| Training needs | Training should give realistic work experience | | | | 1 | 1 | | | | 1 | | | | | | | | | | | | | | | | 3 | 12.50% |
| | On the job trainig is important | | | | | | 1 | | 1 | 1 | | | | | | | | | 1 | | | | 1 | | | 5 | 20.83% |
| | VET is needed to improve communication skills | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | 3 | 12.50% |
| | TVTC should focus on practical, vocational and technical skills | | 1 | | | | | | 1 | | | 1 | 1 | 1 | | | | | | | | | | | | 5 | 20.83% |
| | VET requires private and government cooperation/ training must coordinate with labour needs | | 1 | | | 1 | | | | 1 | 1 | 1 | 1 | | 1 | | | 1 | 1 | 1 | 1 | 1 | | | 1 | 13 | 54.17% |
| | Need for international training and trainers | | | | | | 1 | 1 | | 1 | | | | | 1 | | | | | | | | | | 1 | 5 | 20.83% |
| | Quality of trainers and curriculum is important | | | | | | | | | | | | | 1 | | | | | | | | | | | 1 | 2 | 8.33% |
| | Should measure quality of outcomes for training centre | | | | | | | | | | | | | | | | 1 | | | 1 | | 1 | | | | 3 | 12.50% |
| | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | 1 | 22 | 91.67% |

| | Question 4 | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | CONCEPTS | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | Tot | %age |
| Labour market | VET skills need to match Labour Market Fulfilment | 1 | | | 1 | 1 | | | 1 | | 1 | | | 1 | | 1 | | | | | 1 | | | | | 8 | 33.33% |
| | Specialist courses matched to ICT sector are required/ integration between labour market needs and training subjects | | | | | | | | | 1 | | | | 1 | | | | | | | | | | | | 2 | 8.33% |
| | Prepared Graduates for Labour Market | | | | | 1 | | | | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | | 1 | | | 1 | 1 | | | 1 | 1 | 1 | | | 1 | | 1 | | | | | 1 | | | | | 9 | 37.50% |
| Cooperation | Building Strategic Partnerships with private companies | 1 | | | | 1 | | | | | | | | | | | | | 1 | | | | | | 1 | 4 | 16.67% |
| | Increase cooperative traininig program (2-3 months is not enough) | 1 | | | | | | | | 1 | | | | | | | | | | | | | | | 1 | 3 | 12.50% |
| | Better coordination and communication between private sector and VET governing authorities (TVTC MoL, MoE) will ensure graduates are better equipped for labour market needs | | 1 | | | | 1 | | | 1 | 1 | 1 | 1 | | 1 | | | 1 | 1 | | | | | 1 | 1 | 11 | 45.83% |
| | Companies should be required to employ specific number of trainee graduates (quota) or participate in training programs e.g. OJT, cooperation, scholarships etc. | | | | | | | | | | | | | | | | | 1 | | | | | 1 | 1 | 1 | 4 | 16.67% |
| | Partnerships with international companies / training outside KSA | 1 | | | | 1 | 1 | | | | | | | | 1 | | | | | | | | | | 1 | 5 | 20.83% |
| | | 1 | 1 | | | 1 | 1 | | | 1 | 1 | 1 | 1 | | 1 | | | 1 | 1 | | | | 1 | 1 | 1 | 14 | 58.33% |
| VET training quality | Developing (Readiness of) VET training institutions | | | | | | | | | | | | | | | | | | | 1 | | | | | | 1 | 4.17% |
| | Monitoring and Control | 1 | | 1 | | 1 | | | | | | 1 | 1 | 1 | | | | | | | | | | | | 6 | 25.00% |
| | On the Job Training | | | | | | | | | | | | 1 | 1 | | | | | | | | | | | | 2 | 8.33% |
| | Start VET training at a very early age in schools | | | | | | 1 | | | | | | | | | 1 | | | | | | | | | | 2 | 8.33% |
| | Improve quality of training programs and monitoring/ use global quality benchmarks | 1 | | | | | | | | 1 | | 1 | | | | | 1 | | | | | | | | | 4 | 16.67% |
| | Curriculum of primary and secondary education should change | | | | | | | 1 | | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | Improved curriculum with wider number of specialties, rather than having faculties that all specialize in the same subjects | | | | | | | | | | | | | 1 | | | | | | 1 | | | | | | 2 | 8.33% |
| | Open TVT centres & institutions next to factories | | | | | | | | | | | | | 1 | | | | | | | | | | | | 1 | 4.17% |
| | Training certificates received by graduates need to be recognized as accredited diplomas of equal significance as university degrees | | | | | | | | | | | | | | 1 | | | | | | | | | | | 1 | 4.17% |
| | Improve facilities and tools in universities, especially in coding and IT equipment | | | | | | | | 1 | | | | | | | | | 1 | | | | | | | | 2 | 8.33% |
| | Combination of education, welfare, taining &summer internships | | | | | | 1 | | | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | Trainers should get qualified abroad/ better qualified | 1 | | | | | | | | | | | | | | | | 1 | | | | | | | | 2 | 8.33% |
| | Balancing Practice and Theory | 1 | | | | | | | 1 | | | | | | | | | | | | | | | | | 2 | 8.33% |
| | | 1 | | 1 | | 1 | 1 | 1 | 1 | 1 | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | 1 | | | | | | 15 | 62.50% |
| Participation | Attracting trainees to VET | | | | 1 | 1 | 1 | 1 | | | | | | | | | 1 | | | | 1 | 1 | 1 | | | 8 | 33.33% |
| | Participation of Saudi Women in VET | | | | 1 | | | | | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | Minimum salary for VET graduates to encourage Saudi youth to VET/ increased salaries for Vet graduates/ higher ranked jobs/ finanical motivation to convince youths to join VET programs | | | | | | | 1 | | | | | 1 | | | | | 1 | | | | | | | | 3 | 12.50% |
| | Provide financial support to trainees/training institutions | | | | | | | | | | | | | | | | | | | | 1 | 1 | | | | 2 | 8.33% |
| | Participation of Indigenous Workers in the workforce | | | | | | | | | | | | | | | | 1 | | 1 | | | | | | | 2 | 8.33% |
| | | | | | 1 | 1 | 1 | 1 | | | | | 1 | | | | 1 | 1 | 1 | | 1 | 1 | 1 | | | 11 | 45.83% |
| Saudi choices | changing Shame Culture | | 1 | | | | | | | 1 | 1 | | 1 | | 1 | | 1 | | | 1 | 1 | 1 | | | | 9 | 37.50% |
| | Need to improve Perception of VET | | | | 1 | | | 1 | 1 | | | 1 | 1 | 1 | 1 | | 1 | 1 | | | | 1 | | | 1 | 11 | 45.83% |
| | MoE needs to inform students about VET prior to university/ edification of VET | | | | 1 | | | | | | | | 1 | 1 | 1 | | | 1 | | | | | | 1 | | 6 | 25.00% |
| | Need to reduce gender discrimination in the labour market (communication, integration, respect, acceptance) | | | | 1 | | | | | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | Media has a big role in improving perception and awareness of potential impact of VET | | | | 1 | 1 | | | | | | | 1 | | | | | | | | | | | | | 3 | 12.50% |
| | | | 1 | | 1 | 1 | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | 1 | 1 | | 1 | 1 | 1 | | 1 | 1 | 18 | 75.00% |

| | Question 5 | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | CONCEPTS | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | Tot | %age |
| Government | government needs to cooperate with private sector | 1 | | | | 1 | 1 | | 1 | 1 | | | | 1 | | | 1 | | 1 | 1 | | 1 | | | 1 | 11 | 45.83% |
| | government should fit curriculum to labour needs | 1 | 1 | | | 1 | | | | | | | | 1 | | | | 1 | 1 | | 1 | 1 | | | 1 | 9 | 37.50% |
| | Government needs to cooperate with universities | | | | 1 | | | | | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | Government financial support for VET centres | | | | | | | | | | | | | | | | | | | | | | | 1 | | 1 | 4.17% |
| | Government should make VET centres compete by assessing them | | | | | | | | | | | 1 | | | | | | | | | | | | | | 1 | 4.17% |
| | government should provide updated equipment | | | | | | | | | | | | | | | 1 | | | | | | | | | | 1 | 4.17% |
| | Government needs to test suitability for jobs after training and give license for work | | | | | | | | | | | | | | 1 | | | | | | | | | | | 1 | 4.17% |
| | Government needs to change culture towards practical skills | | | | | | | | | | | | 1 | | | | | | | | | | | | | 1 | 4.17% |
| | Government should regulate and license VET centres | | | | | | | | | | | 1 | | | | | | | | | | | | | | 1 | 4.17% |
| | Government needs to organise hands on skills | | | | | 1 | | | | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | | 1 | 1 | | 1 | 1 | 1 | | 1 | 1 | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | 1 | 1 | 20 | 83.33% |
| Companies | private companies responsible for training saudis | 1 | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | need cooperation between employers and training organisations | 1 | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | VET centres need investment form private companies | | 1 | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | 2 | 8.33% |
| VET centre | VET centres need to give training to satisfy labour needs | 1 | | | | | | | 1 | | 1 | 1 | | | | | 1 | 1 | 1 | 1 | 1 | 1 | | 1 | | 11 | 45.83% |
| | Vet centres need to provide hands on experience | | | | | 1 | 1 | | | | | | | | | | | | 1 | | | | 1 | | | 4 | 16.67% |
| | VET centres need to develop soft skills | | | | | | | | | | 1 | | | | | | | | | | | | | | | 1 | 4.17% |
| | VET centres should direct students to labour needs | | | | | | | | | | | | | | | | | | | | | | | 1 | | 1 | 4.17% |
| | VET needs to assess outcomes of courses | | | | | | | | | | | | 1 | | | | | | | | | | | | 1 | 2 | 8.33% |
| | VET centres should train trainers | | | | | | | | | | | 1 | | | | | | | | | | | 1 | | | 2 | 8.33% |
| | VET centres need to develop curriculum | | | | | | | | | | | | 1 | | | | | | | | 1 | | 1 | | | 3 | 12.50% |
| | Vet centres assess suitability of student for roles | | | | | | | | | | | | | | 1 | | | | | | | | | | | 1 | 4.17% |
| | VET centres need to coordinate training across authorities | | | | | | | | | 1 | | | | 1 | | 1 | | | | | | | | | | 3 | 12.50% |
| | Training centres should have financial incentives, with help from private sector | | | | | 1 | | | | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | training centres need to cooperate with private sector | | | | | 1 | 1 | | | | | | | | | | | | | 1 | | | | | | 3 | 12.50% |
| | | 1 | | | | 1 | 1 | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 20 | 83.33% |
| Trainees | Trainees need motivation to work | | 1 | 1 | | 1 | 1 | 1 | 1 | 1 | | | 1 | 1 | 1 | 1 | 1 | 1 | | | | | | 1 | 1 | 15 | 62.50% |
| | Trainees should value their specialisation | | | | 1 | | | 1 | | | | | | | 1 | | | | | | | | | 1 | | 4 | 16.67% |
| | Trainees need self-learning skills | | 1 | | | 1 | | | | | | | | | | | | | | | | | | | | 2 | 8.33% |
| | Trainees should decide what area they want to work in | 1 | | 1 | | | | | | | | 1 | | | | | | | 1 | | | | | | | 4 | 16.67% |
| | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | 1 | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | | | | 1 | 1 | 18 | 75.00% |
| Trainers | Trainers need to develop soft skills of trainees | 1 | | | | | | | | | | 1 | | | | | | | | | | | | | | 2 | 8.33% |
| | Trainers need to be up to date with new methods | | | | 1 | 1 | | | | 1 | | 1 | 1 | | 1 | 1 | | | | | 1 | | 1 | | | 9 | 37.50% |
| | Trainers need to use real world methods | | | | | | | | | | 1 | | 1 | | | | | | | | | | | | | 2 | 8.33% |
| | Trainers should be rewarded for good performance | | | | | | | | | | | | 1 | | | | | | | 1 | | | | | | 2 | 8.33% |
| | Trainers need to improve motivation of students | | | 1 | | 1 | | | 1 | | | 1 | | | | | | | | | | | | | | 4 | 16.67% |
| | Trainers need to meet international standards | | | | | | 1 | | | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | Trainers need qualifications in education methods | | | 1 | | 1 | | | | | | | | | | | | 1 | | | | | | | | 3 | 12.50% |
| | Trainers need qualifications and training | | 1 | | 1 | | 1 | 1 | | | | | | 1 | | 1 | 1 | | | | | 1 | 1 | | 1 | 10 | 41.67% |
| | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | 1 | 1 | 1 | 1 | | 1 | 22 | 91.67% |
| Universities & graduates | Graduates must have working skills to advance | | 1 | 1 | | | | 1 | 1 | | | 1 | | | | | | | | | | | | | | 5 | 20.83% |
| | Graduates should give feedback to help improve systems | | | | | | 1 | | | | 1 | 1 | 1 | 1 | | 1 | | | | | | | | | | 6 | 25.00% |
| | Graduates should help other students | | | | | | | | | | 1 | | 1 | | | | | | | | | | | | | 2 | 8.33% |
| | Graduates are link between education and labour market | 1 | | | | | | | | | | | 1 | | | | | | | | | | | | | 2 | 8.33% |
| | Graduates need to study more to advance, continuous development | | | | | | | | | 1 | | | | | | | | | | | | 1 | | 1 | | 3 | 12.50% |
| | Graduates work in jobs that match their studies | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1 | 4.17% |
| | | 1 | 1 | 1 | | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | 1 | | | | | | 1 | | 1 | 1 | 15 | 62.50% |

| | Question 6a | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | CONCEPTS | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | Tot | %age |
| skills needed | on-the-job training | 1 | | 1 | 1 | 1 | 1 | | 1 | | | 1 | 1 | 1 | 1 | 1 | | | | 1 | | | 1 | | 1 | 14 | 58.33% |
| | training must be practical more than theoretical | | | | | | | 1 | 1 | | | | | 1 | | | | | | | | | | | | 3 | 12.50% |
| | qualify and prepper graduates to labor work | | | | | | | 1 | | | | 1 | 1 | 1 | | | 1 | | | 1 | | | | 1 | | 7 | 29.17% |
| | scolarship to address lack of skills | | | | | | | | | 1 | | | | | | | | | | | | | | | 1 | 2 | 8.33% |
| | tests in National Qias Centre to measure skills/ assessment test is important to develop needed skills | | | | | | | | | | | | | | | | 1 | | 1 | | | | | | | 2 | 8.33% |
| | share knowledge and experience between experts and graduatres | | | | | 1 | | | | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | increase work ethic | | 1 | | | | | | | | | | 1 | | | | | 1 | | | | | | | | 3 | 12.50% |
| | English skills, attitudes and communication skills | 1 | 1 | 1 | | 1 | | | 1 | 1 | | | | | 1 | | | \ | | | | | | | | 8 | 33.33% |
| | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | 1 | 1 | 1 | 1 | 1 | 1 | \ | 1 | 1 | | | 1 | 1 | 1 | 21 | 87.50% |
| labour needs | Connect education system with knowledge and skills required in labor market. | 1 | | 1 | 1 | 1 | | 1 | 1 | | 1 | | 1 | 1 | | 1 | 1 | 1 | 1 | | | 1 | | 1 | | 15 | 62.50% |
| | Specialized courses (matched to ICT sector needs) | | | | | | | | | 1 | 1 | | | 1 | | | | | | 1 | | | 1 | | | 5 | 20.83% |
| | Regulator authorities like ML, CITC force cooperate training between VT's institutions and labor market. (examples) | | | | | | | 1 | | | 1 | 1 | | | 1 | 1 | | | 1 | | | | | | | 6 | 25.00% |
| | cooperation/partnership between education/ VET centers and successful International or private institutions | | | | | 1 | | | | | | | 1 | | | | | | | | | | | | 1 | 3 | 12.50% |
| | | 1 | | 1 | 1 | 1 | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | 1 | 1 | 1 | 1 | 21 | 87.50% |
| training choices | school responsible to identify future interest among students | | 1 | | | | | | | | | 1 | | | | | | | | | | | | | | 2 | 8.33% |
| | increase society awareness on VET | | | | | | 1 | | | | | | | | | | | 1 | | | | | | 1 | | 3 | 12.50% |
| | Need financial incentives for vocational jobs | | | | | | | | | | | | | | | | | | | 1 | 1 | | | | | 2 | 8.33% |
| | graduates must be trained and occupied in their specialization | | | | | | | | | | | 1 | | | | 1 | | | | | 1 | | | | | 3 | 12.50% |
| | | | 1 | | | | 1 | | | | | 1 | | | | 1 | | 1 | | 1 | 1 | | | 1 | | 8 | 33.33% |
| school education | VET enlightenment start from school age (intermediate and secondary ) | | 1 | | 1 | | | | 1 | | | 1 | 1 | 1 | | | | 1 | | | | | | 1 | | 8 | 33.33% |
| | VET recently started in primary and intermediate stage but tutors at school are not qualified enough and teach theoretically more than practically. | | | | | | | | 1 | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | change style of education at school and learn students the technics of self-education or self-improvement | | 1 | | | 1 | | | | | | | | | | | | | | | | | | | | 2 | 8.33% |
| | | | 1 | | 1 | 1 | | | 1 | | | 1 | 1 | 1 | | | | 1 | | | | | | 1 | | 9 | 37.50% |
| training quality | have youth programs such as Development Network program | | | | | | 1 | | | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | Industrial development Fund must support training to encourge employment in that field | | | | | | | | | | | | | 1 | | | | | | 1 | | | | | | 2 | 8.33% |
| | appointing high qualified trainers | | | | | | | 1 | | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | Cisco training system and assessment is positive | | | | | | | | 1 | | 1 | | | | | | | | | | | 1 | | | | 3 | 12.50% |
| | specific quality benchmarks | | | | | | | | | | | | | | | | 1 | | | | | | | | | 1 | 4.17% |
| | lack in VT's tools | | | | | | | | 1 | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | VET trainers are weak and as a result the outputs are weak | | | | | | | | | | | | | 1 | | | | | | | | | | | | 1 | 4.17% |
| | | | | | | | 1 | 1 | 1 | | 1 | | | 1 | | | 1 | | | 1 | | 1 | | | | 8 | 33.33% |

| | Question 6b | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | CONCEPTS | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | Tot | %age |
| incentives & funding | low financial return | 1 | 1 | | | | | | 1 | | | | | | | | | | | | | | | | | 3 | 12.50% |
| | private sector unwillingness to invest in officials' training owing to high costs | | | | | | | | | | | | | | | | | | | 1 | | | | | | 1 | 4.17% |
| | there must be serious allowances and rewards | | | | | | | | | | | | 1 | | | | | | | | | | | | | 1 | 4.17% |
| | | 1 | 1 | | | | | | 1 | | | | 1 | | | | | | | 1 | | | | | | 5 | 20.83% |
| educationmethods | Education is theoretical not practical | | | | 1 | | | | | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | training tools are not updated or not available | | | | | | | | | | | | | | | | | 1 | | | | | | | | 1 | 4.17% |
| | weak trainers | | | | | | | | 1 | | | | | 1 | | | | | | | | | | | | 2 | 8.33% |
| | VET institutions don't impose training after graduation | | | | | | | | | | | | | 1 | | | | | | | 1 | | | | | 2 | 8.33% |
| | educational institutions are weak | | | | | | | | | | | | | | | | | | | | | 1 | | | 1 | 2 | 8.33% |
| | | | | | 1 | 1 | | | 1 | | | | | 1 | | | | 1 | | | 1 | 1 | | | 1 | 8 | 33.33% |
| culture & attitudes | employers don't prefer dealing with women | | | | 1 | | | | | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | restrictions in governmental authorities in employing women | | | | | | | | | 1 | | | | | | | | | | | | | | | | 1 | 4.17% |
| | lack of information on labor market among saudi indigenous/ work value | | | | | | | | 1 | | | | 1 | | | | | | | | | | | | | 2 | 8.33% |
| | differentiations in segregation according to leadership orientation in an authority | | | | | | | | | | 1 | | | | | | | | | | | | | | | 1 | 4.17% |
| | Companies prefer university students to VET institutes | | | | | | | | | | | | 1 | | | | | | | | | | | | 1 | 2 | 8.33% |
| | saudis avoid working long hours and expats work harder and more committ | | 1 | | | | | | | | | | | | | | | | | | 1 | | | | | 2 | 8.33% |
| | cultural issue | | | | | | | | | 1 | | | | | | | | | | | | | | | | 1 | 4.17% |
| | society inferior view effecting VET | | 1 | | | | | | | | | | | | | | | | | | | | | | 1 | 2 | 8.33% |
| | policies and legislations NOT applied | | | | | | | | | | | | | 1 | | | | | | | | | | | | 1 | 4.17% |
| | | | 1 | | 1 | | | | 1 | 1 | 1 | | 1 | 1 | | | | | | | 1 | | | | 1 | 9 | 37.50% |
| Trainee skills | weakness in time management | | | 1 | | | | | | | | 1 | | | | | | | | | | | | | | 2 | 8.33% |
| | weak soft skills | | | 1 | | | | | | | | | 1 | | | | | | | | | | | 1 | 1 | 4 | 16.67% |
| | Aptitude Tests to examine abilities | | | | | 1 | 1 | 1 | | | 1 | | | | | | | | 1 | 1 | | 1 | 1 | | 1 | 9 | 37.50% |
| | no specialized technical tests | | | | | | | | | | | | | | 1 | | | | | | | | | | | 1 | 4.17% |
| | students lack self development after graduating | | | | | | | | | | | | | | | 1 | | | | | | | | | | 1 | 4.17% |
| | workers must be aware of last updateds in the field | | | | | | | | | | | | | | | | | | | | | | | 1 | | 1 | 4.17% |
| | | | | 1 | | 1 | 1 | 1 | | | 1 | 1 | 1 | | 1 | 1 | | | 1 | 1 | | 1 | 1 | 1 | 1 | 15 | 62.50% |

| | Question 7 | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | CONCEPTS | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | Tot | %age |
| labour market skills | Labour Market Needs Fulfilment | | | | | | | | | | | | | | | | | | 1 | | | | | | | 1 | 4.17% |
| | Skills Linked to Labour Market Needs | | | | | | | | | | | | | | | | | | 1 | | | | | | | 1 | 4.17% |
| | Equipping VET Graduates to Labour Market | | | | | | | 1 | | | | | | | | | | | 1 | | | | | | | 2 | 8.33% |
| | | | | | | | | 1 | | | | | | | | | | | 1 | | | | | | | 2 | 8.33% |
| cooperation | Unifying Efforts | | | | | | | | | 1 | | | | | | | | | | | | | | | | 1 | 4.17% |
| | Coop between universities and labour and between universities and international institutions | | | 1 | 1 | 1 | | | | | | | | | | 1 | | | | | | | | | | 4 | 16.67% |
| | Authorities should be connected to universities, local & international labour market, and training institutions | | | | | | 1 | | | | | | 1 | | | | | | | | | | | | | 2 | 8.33% |
| | Training ending with employment | | | | | | | | | | | | | | | | | 1 | | | | | | | | 1 | 4.17% |
| | | | | 1 | 1 | 1 | 1 | | | 1 | | | 1 | | | 1 | | 1 | | | | | | | | 8 | 33.33% |
| Saudi choices | Attracting trainees to VET | | | | 1 | | | | | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | Participation of Saudi Women in VET | | | | | | 1 | | | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | There needs to be better understanding of how Vet can equip youngsters for the labour market | | | | 1 | | | | | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | Belief in VET | | | | 1 | | | | | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | | | | | 1 | | 1 | | | | | | | | | | | | | | | | | | | 2 | 8.33% |
| Training | Balancing Practice and Theory | | | | 1 | 1 | | 1 | | | | | | | | | | | | | | | | | | 3 | 12.50% |
| | 70% practice 30% theory/ focus on practical training | | | | 1 | | | | 1 | | | | | | | 1 | 1 | | | | 1 | | 1 | | 1 | 7 | 29.17% |
| | On the Job Training | 1 | | | | | 1 | | | | 1 | | | | | | | 1 | | | | | | | | 4 | 16.67% |
| | Behavioural and administrative skills (organising time, communication, ability to hold meetings, teamwork, commitment, culture of work, continuous learning attitude) should be included/ Communication skills should be taught in schools/ improved communication skills related to work | | | | | 1 | | | | | | | | 1 | 1 | 1 | 1 | 1 | | 1 | 1 | | | | 1 | 9 | 37.50% |
| | Report/ tests to evaluate trainees/graduates every 3 to 6 months | | | | | | | | | | | | | | | | | | | | | | 1 | | | 1 | 4.17% |
| | Monitoring and Control / training tests | | | | | 1 | | | | | | | 1 | | | | | | | | | | | | 1 | 3 | 12.50% |
| | | 1 | | | 1 | 1 | 1 | 1 | 1 | | 1 | | 1 | 1 | 1 | 1 | 1 | 1 | | 1 | 1 | | 1 | | 1 | 17 | 70.83% |
| International models | French model which teaches students how to conduct themselves in world of work and installs a susceptibility and desire to learn and to join the labour market | | 1 | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | Follow international standards and framework but integrated to Saudi culture/ use international benchmarks/ use framework applied in international companies like CISCO Oracle & Juniper | | | | | 1 | | | | | | 1 | | | | | 1 | | | | | 1 | | | | 4 | 16.67% |
| | Develop several frameworks for each specialty/ specialized vocational training track/ Framework divided into: 20% knowledge, 20% soft skills and 60% specialization courses/ Better connection among MoE and IT and Telecom Authorities to be able to develop specialised curriculum of this sector | | | | | | 1 | | | | 1 | | | 1 | 1 | 1 | | | | | 1 | | | 1 | | 7 | 29.17% |
| | | | 1 | | | 1 | 1 | | | | 1 | 1 | | 1 | 1 | 1 | 1 | | | | 1 | 1 | | 1 | | 12 | 50.00% |

**b. Tourism**

**Tourism Analysis code**

| ROLE | INTERVIEWEE |
|---|---|
| SCTH-D1 | Manager |
| SCTH-D2 | Administration Manager of Tourist & Vocational Employment |
| SCTH-D3 | Manager |
| SCTH-D4 | Administration Manager of Training |
| SCTH- G1 | Senior Researcher |
| SCTH-T1 | Trainer |
| SCTH-D5 | Organisational Excellence Manager |
| SCTH-G2 | HR Specialist |
| HOK-D1 | Manager |
| HOK-D2 | General Operator Representative |
| HOK-L1 | Trainee |
| HOK-L2 | Trainee |
| HOK-G1 | Graduate |
| HOK-T1 | Trainer |
| HOK-D3 | Manager |
| HOK-T2 | Trainer |
| MOV-D1 | Manager |
| MOV-D2 | Personal Assistant |
| MOV-D3 | Front Office Manager |
| MOV-T1 | Training Supervisor |
| MOV-T2 | Training Supervisor |
| MOV-L1 | Front office Trainee |
| MOV-L2 | Resevation Agent / Trainee |
| MOV-G1 | Sales & Marketing Coordinator Graduate |

| Themes | Question 1<br>CONCEPTS | 52 | 53 | 54 | 56 | 65 | 66 | 67 | 75 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 55 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | Tot | %age |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Saudi participation | high participation | 1 | | | | | | 1 | | | | | | | | | | | | | | | | | | 2 | 8.33% |
| | participation is accepted now a days | | | | 1 | | 1 | | | | | 1 | | 1 | | 1 | | 1 | | | 1 | | | 1 | | 8 | 33.33% |
| | weak participation/ weak participation in hotels | | 1 | 1 | | | | | 1 | 1 | 1 | | 1 | | 1 | | 1 | | 1 | 1 | | | 1 | | 1 | 12 | 50.00% |
| | give high salary to low jobs to attract saudis participation | | | | | | | | | 1 | | | | | | 1 | | | | | | | | | | 2 | 8.33% |
| | | 1 | 1 | 1 | 1 | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | 1 | 1 | 1 | 22 | 91.67% |
| Saudi Choice/ Culture & Awareness | inferior view in some professions in tourism sector and saudi paticipation in it is weak | | 1 | | | | | | | 1 | | | 1 | | 1 | 1 | 1 | | 1 | | | | | | | 7 | 29.17% |
| | saudis prefer to work in government sector | | 1 | | 1 | | | | | 1 | | | | | | | | | 1 | | | | | | 1 | 5 | 20.83% |
| | cultural barriers | | | | | | | | | 1 | | | 1 | | 1 | 1 | | | 1 | | | | | | 1 | 6 | 25.00% |
| | tourism sector don't accept saudis | | | 1 | | | | | | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | some professions are accepted among saudi workers in hotels sector | | | | 1 | | | | | | | | | | | 1 | | | | | | | | | | 2 | 8.33% |
| | saudis not work in their specilaisation | | | | 1 | | 1 | | | | | | | | | | | | | | | | | | | 2 | 8.33% |
| | Small cities have more interest in crafts than big cities | | | | | 1 | | | | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | increase awareness throgh media/ worshop/ advertisment and training institutions/ preception has changed positevlly | | | | | | 1 | 1 | | | 1 | | 1 | | 1 | 1 | 1 | 1 | | | | | | | 1 | 9 | 37.50% |
| | the concept of tourism wasn't clear to the society/ lack of awareness | | | | | | | 1 | 1 | 1 | | | | | | 1 | | 1 | 1 | 1 | | | | | | 7 | 29.17% |
| | employers low trust in saudis worker | | | | | | | | 1 | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | saudis avoid hard and long hours working/ low pay | | | | | | | | | | | | 1 | | | | | | | 1 | | | | | | 2 | 8.33% |
| | increase tourism investments/ improve historical areas for tourism | | 1 | | | | | | | | 1 | | | | 1 | | | | | | 1 | | 1 | | | 5 | 20.83% |
| | allowances not availble in tourism sector | | | 1 | | | | | 1 | | | | | | | | | | | | | | | 1 | | 3 | 12.50% |
| | religion tourism has high incom | | | | | | | | | | 1 | | | 1 | | | | | | | | | | | | 2 | 8.33% |
| | | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | 1 | 1 | 1 | 21 | 87.50% |
| Training Needs | There is National vocational program (BARAA) | | | | | 1 | | | | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | (your job is your scholarship) program to increase awareness | | | | | | 1 | | | | | | | | 1 | | | | | | | | | | | 2 | 8.33% |
| | Takamol institustion (training end with employment) program | | | | 1 | | | 1 | | | | | | | | 1 | | | | | | | | | | 3 | 12.50% |
| | English language is weak | | | | | | | | | | | | | | | | | | 1 | | | | | | | 1 | 4.17% |
| | no tourism specialties for girls taught at educational/ training institutions are weak | | | 1 | | | | | | | | | | | | | | | 1 | | | | | | | 1 | 4.17% |
| | governemet in 2006/2007 tarining programm and scholarship and job opprtunity increased to attract saudis | | | | | | 1 | 1 | | | | | | | | | | | | | | | | | | 2 | 8.33% |
| | | | | 1 | 1 | 1 | 1 | 1 | | | | | | | 1 | 1 | | | 1 | | | | | | | 8 | 33.33% |
| Cooperation | coorperation between SCHT and universities/ training centers | | | | | | 1 | 1 | | | | | | | | | | | | | | | | | | 2 | 8.33% |
| | | | | | | | 1 | 1 | | | | | | | | | | | | | | | | | | 2 | 8.33% |
| Expats | saudis take higher caosts | | | 1 | | | | | | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | expats workers are higher in tourism srctor | | | | | | | | 1 | | | | | | | | | | | | | | 1 | | | 2 | 8.33% |
| | expats lower caost and work harder | | | | | | | | 1 | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | baisd expats / competition expats to Saudis/ work environment is not good | | | | | | | | 1 | | | | | | | | | | | 1 | | | | | | 2 | 8.33% |
| | | | | 1 | | | | | 1 | | | | | | | | | | | 1 | | | 1 | | | 4 | 16.67% |
| Labour market needs | labor market demand of worker more than supply | | | 1 | | | | | | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | tourism qualification less than what is needed in labor market/ not good quality of saudis qualification | | | 1 | | | | | | | | | | | | | | | | 1 | | | | | | 2 | 8.33% |
| | | | | 1 | | | | | | | | | | | | | | | | 1 | | | | | | 2 | 8.33% |

| Themes | Question 2<br>CONCEPTS | 52 | 53 | 54 | 56 | 65 | 66 | 67 | 75 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 55 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | Tot | %age |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Skills | There is skills mismatch | 1 | 1 | 1 | | | 1 | | | | 1 | | 1 | | | | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 14 | 58.33% |
| | skills are matching | | | | | | | | | 1 | | 1 | | 1 | | 1 | 1 | | | | | | | | | 5 | 20.83% |
| | expats skills are higher than saudi in the sector | | | | | | | | | | | | | | | | 1 | | | | | | | | | 1 | 4.17% |
| | English language needed/ communication skills | | 1 | 1 | 1 | | | | 1 | | | | 1 | | 1 | | | 1 | | 1 | | 1 | | 1 | | 10 | 41.67% |
| | general education output and VET output are weak | | | | | | 1 | | | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | tourism specialisation not compatible to the sector needs | 1 | 1 | | | | 1 | | | | | | | | | | | 1 | | | | | 1 | | 1 | 6 | 25.00% |
| | 90% of alhokhair group training is matching the job in hotel sector | | | | | | | | | 1 | | 1 | | 1 | | 1 | 1 | | | | | | | | | 5 | 20.83% |
| | | 1 | 1 | 1 | 1 | | 1 | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 22 | 91.67% |
| Culture/ Job Choices | low jobs not accepted by saudis | 1 | | | 1 | | | 1 | | | 1 | | | | 1 | | | | | | | | | | | 5 | 20.83% |
| | saudi don't accept low salary but expats do | 1 | | | | | | | | | | | | | 1 | | | | | 1 | | | | | | 3 | 12.50% |
| | employers prefer expats because they work harder and take lower salary | 1 | | 1 | | | | | 1 | | | | | | | | | | | | | | | | | 3 | 12.50% |
| | cultural barriers | | | | 1 | 1 | | | | | 1 | | | | | | | | | | | 1 | | | | 4 | 16.67% |
| | women jobs in back office | | | | 1 | 1 | | | | | | | | | | | | | | | | | | | | 2 | 8.33% |
| | awareness start from realy age at school | | | | | | | | | | | | | | | | 1 | | | | | | | | | 1 | 4.17% |
| | no work ethic | | | | | | | | | | | | | | | | | | | 1 | | | | | | 1 | 4.17% |
| | | 1 | | 1 | 1 | 1 | | 1 | 1 | | 1 | | | | 1 | | 1 | | | 1 | | 1 | | | | 11 | 45.83% |
| Policy/ Labour Market | goverenment don't focus on saudiziation in low jobs | 1 | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | efforts from government to qualify saudi skills to labor market | | | | | | | | | | | | | | | | | | | | | | | | | 0 | 0.00% |
| | | 1 | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.17% |
| Training Needs | there are incentives like scholarship/ increase awareness | | 1 | | | | | | | | 1 | | | | | | | | | | | | | | | 2 | 8.33% |
| | turn them from theoretical to practical training/ OTJ | | | 1 | | | | | | 1 | | 1 | | | 1 | 1 | | 1 | | | | | 1 | | 1 | 8 | 33.33% |
| | duration of training is important to aquire skills needed (2 years) | | | | | | | | | | | 1 | | | | | | | | | | | | | 1 | 2 | 8.33% |
| | | | 1 | 1 | | | | | | 1 | 1 | 1 | | | 1 | 1 | | 1 | | | | | 1 | | 1 | 10 | 41.67% |
| Cooperation | cooperation between authorities is needed | | 1 | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | there is cooperation between SCHT and VET institutions (exapmles) | | | | | | 1 | 1 | 1 | | 1 | | | | | | | | | | | | | | | 4 | 16.67% |
| | | | 1 | | | | 1 | 1 | 1 | | 1 | | | | | | | | | | | | | | | 5 | 20.83% |
| Expats | The foreigner managers don't give Saudis the chance to work | | | | | | | | 1 | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | | | | | | | | | 1 | | | | | | | | | | | | | | | | | 1 | 4.17% |

| Themes | Question 3a<br>CONCEPTS | 52 | 53 | 54 | 56 | 65 | 66 | 67 | 75 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 55 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | Tot | %age |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Low Impact | lack of good taraining tools (trainers, training environment, tools) | | | 1 | | | | | | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | TVTC impact on saudi skills is meduim | | | | | | | | | | | | | | | | | | | | 1 | | | | | 1 | 4.17% |
| | Alhokhair group is the only institute provied hotels and tourism management training but their output is bad | | | | | | | | | | | | | | | | | | | 1 | | | | | | 1 | 4.17% |
| | | | | 1 | | | | | | | | | | | | | | | | 1 | 1 | | | | | 3 | 12.50% |
| Positive Impact | VET system has good impact on saudi skills | 1 | | 1 | 1 | 1 | 1 | | 1 | | | | | | | | 1 | | | | | | | | | 7 | 29.17% |
| | the newly opened colleges of excellence have postive impact and train according to labor market needs | 1 | | | 1 | | | | | | | | | | | | | | | | | | | | | 2 | 8.33% |
| | all graduates of tourism specialties are required for the job and take high salary | 1 | | | 1 | 1 | | | | | | | | | | | | | | | | | | | | 3 | 12.50% |
| | qualified trainers | | | | | 1 | | | | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | Takamol intiatives has positive views on labor market | | | | | | | 1 | | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | alhokhair group specialized to work in hotels and tourism management and has postive views on their training system | | | | | | | | | 1 | | 1 | 1 | 1 | 1 | 1 | 1 | | | | | 1 | | | | 8 | 33.33% |
| | Movinpick hotel has their own standards and training and its excellent | | | | | | | | | | | | | | | | | | | 1 | | | | | | 1 | 4.17% |
| | Institution of administration has excellent outcomes | | | | | | | | | | | | | | | | | | | 1 | | | | | | 1 | 4.17% |
| | | 1 | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | 1 | 1 | 1 | 1 | 1 | 1 | | | 1 | | 1 | | | | 16 | 66.67% |
| Cooperation | cooperation between authorities and tourism training instiutions for development | 1 | 1 | 1 | 1 | 1 | 1 | | | 1 | | | | | | 1 | | | | | | | | | 1 | 9 | 37.50% |
| | strategic partnership between government in tuorism sector and international companies | | | 1 | | | | | | | | | | | 1 | | | | | | | | | | | 2 | 8.33% |
| | | 1 | 1 | 1 | 1 | 1 | 1 | | | 1 | | | | | 1 | 1 | | | | | | | | | 1 | 10 | 41.67% |
| Saudi Choices/ Culture | saudis acceptence/ participation of tourism jobs/ training is differe bteween cties in KSA | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | 2 | 8.33% |
| | travel and tourism agency training programs are more than hotels | | | 1 | | | | | | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | demotivation due to long working hours and low salary | | | | | | 1 | | | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | saudis work in tourism sector as a temporary till get better job | | | | | | 1 | | | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | inferior view / no believe in Tourism | | | | | | 1 | | 1 | | | | | | | | | | 1 | | | | | | | 3 | 12.50% |
| | lack of awareness on importance of tourism sector | | | | | | 1 | | | | | | | | | | | | 1 | | | | | | | 2 | 8.33% |
| | saudis prefer government jobs | | | | | | | | | | | | | | | | | | 1 | | | | | | | 1 | 4.17% |
| | most workers in hotels are expats | | | | | | | | | | | | | | | | | | | 1 | | | | | | 1 | 4.17% |
| | jobs occupied by saudis in hotels are front office and HR | | | | | | | | | | | | | | | | | | | 1 | | | | | | 1 | 4.17% |
| | | 1 | 1 | 1 | | | 1 | | 1 | | | | | | | | | | 1 | 1 | | | | | | 7 | 29.17% |
| Training Needs | equalisation between diploma degree and bachelor degree is needed/ gradutes from universities are better | | | | | | | | 1 | | | | | | | | | | 1 | | | | | | | 2 | 8.33% |
| | TVTC don't provide all tourism sector specialisations/ needs to be improved | | | | | | | | | 1 | | | | | 1 | | | 1 | 1 | | | | 1 | | 1 | 6 | 25.00% |
| | lack of practical training at TVTC OR universities/ duration of practice tarining in not anough | | | | | | | | | | 1 | | | | 1 | 1 | | | | 1 | | | 1 | 1 | 1 | 7 | 29.17% |
| | lack soft skills and commitment dispite its important | | | | | | | | | | | | | | | | | | | | 1 | 1 | | | | 2 | 8.33% |
| | | | | | | | | | 1 | 1 | 1 | | | | 1 | 1 | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 13 | 54.17% |

| Themes | Question 3b<br>CONCEPTS | 52 | 53 | 54 | 56 | 65 | 66 | 67 | 75 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 55 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | Tot | %age |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Training Needs | Improve curriculim and training programs using experts and specilaised trainers and linked to job requrinment | | 1 | 1 | 1 | 1 | | | 1 | 1 | | | | | | | | 1 | | | | | | | | 7 | 29.17% |
| | College of Excellence has great training quality | | | | 1 | | | | | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | use international experiences to improve training in the field of tourism/ world standard | | | | 1 | | | | | | 1 | | | | 1 | | | 1 | | | | | | | | 4 | 16.67% |
| | Studying should be in English | | | | 1 | | | | | | | | | | 1 | | | | | | | | | | | 2 | 8.33% |
| | Increase the varaity of spcialisations and training related to tourism / increase tourism institutions and students/ extend traing period | | | | | 1 | | 1 | | 1 | | | 1 | | | | | | 1 | 1 | | 1 | 1 | | 1 | 9 | 37.50% |
| | difficulties to find qualified Saudis with tourism specialisations dispite the high demand | | | | | | | 1 | | | | | | | | | | | 1 | | | | | | | 2 | 8.33% |
| | determin the skills needed for each job | | | | | | | | 1 | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | foucs more on practical training | | | | | | | | | 1 | 1 | | | | 1 | | | | | | | 1 | 1 | 1 | | 6 | 25.00% |
| | Monitor& Control/ folow up with grdauates | | | | | | | | | | | | | | | | 1 | | | | | | | | 1 | 2 | 8.33% |
| | Institute of administration has good outcomes | | | | | | | | | | | | | | | | | | | 1 | | | | | | 1 | 4.17% |
| | | | 1 | 1 | 1 | 1 | | 1 | 1 | 1 | 1 | | 1 | | 1 | | 1 | 1 | 1 | 1 | | 1 | 1 | 1 | 1 | 18 | 75.00% |
| Cooperation | cooperation between authorities nationally and globaly to improve training in tourism sector related to labour market requriements (integrated center) | 1 | 1 | 1 | | 1 | 1 | | | 1 | | | | | 1 | 1 | 1 | 1 | | | | | | 1 | 1 | 12 | 50.00% |
| | TVTC must increase Saudi employmnet and reduce expats | | | | | | | | | | | 1 | | 1 | | | | | | | | | | | | 2 | 8.33% |
| | | 1 | 1 | 1 | | 1 | 1 | | | 1 | | 1 | | 1 | 1 | 1 | 1 | 1 | | | | | | 1 | 1 | 14 | 58.33% |
| Tourism Labour Market | provide tourism visa to activaite tourism sector | | | | | | | 1 | | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | | | | | | | | 1 | | | | | | | | | | | | | | | | | | 1 | 4.17% |
| Culture, Awareness & Job choices | Saudis lack of awarness on tourism sector and its economic impact | | | | | | | 1 | | 1 | | | | | | | | | 1 | 1 | 1 | | | | | 5 | 20.83% |
| | give more attention to media | | | | | | 1 | | | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | Saudi don't consider jobs in tourism sector seriously | | | | | | | 1 | | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | attract Saudis to tourism spcialisation (university degree) job attractiveness | | | | | | | | | | 1 | | | | | | 1 | | | | | | | | | 2 | 8.33% |
| | Geographical differences in views/ in Jeddah and makkah awareness and culture on tourism is higher than Riyadh (example) | | | | | | | | | | | | | | | | | | | 1 | | | | | | 1 | 4.17% |
| | | | | | | | 1 | 1 | | 1 | 1 | | | | | | 1 | | 1 | 1 | 1 | | | | | 8 | 33.33% |

| Themes | Question 4<br>CONCEPTS | 52 | 53 | 54 | 56 | 65 | 66 | 67 | 75 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 55 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | Tot | %age |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Policies | financial support | 1 | | | | | | | | | | 1 | | | 1 | 1 | | | | | | | | | | 4 | 16.67% |
| | increase awareness on tourism sector | | | | | | | 1 | 1 | | | | | | | 1 | | 1 | | 1 | | | | 1 | | 6 | 25.00% |
| | increase salary | 1 | | | | | | 1 | | | | 1 | | | | | 1 | | 1 | 1 | | | 1 1 leg | 1 leg | | 7 | 29.17% |
| | improve work environment | 1 | | | | | | | | | | | | | | | | | 1 | | | | | | | 2 | 8.33% |
| | improve personnel training | 1 | 1 | | | | | | | | | | | | | | | | | 1 | | 1 | | | 1 | 5 | 20.83% |
| | increase Saudisation in tourism sector (example 75??) | 1 | | | | | | | | | | | | | | | 1 | | | | 1 | | | | | 3 | 12.50% |
| | use international experiences (cooperation) | | 1 | | | | | | | | | | | | 1 leg | | | | | | | | | | | 1 | 4.17% |
| | focuse more on English langauge and basic skills | | 1 | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | attract qualified trainer and invest on them by improve their training skills (training abroad) | | 1 | | | | | | | | | | | 1 | 1 leg | | | | | | | | | | | 2 | 8.33% |
| | Council of Ministries must create higher body for training that responsible of work requirements, work directions, trainees skills related to labor market needs, improve their skills, improving the work environment and reduce unemployment (example) | | | 1 | | | | | | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | cooperation between responsible authorities in tourist sector. | | | | 1 | | | | 1 | | | | | 1 | | 1 | | | | | | | | | | 4 | 16.67% |
| | training ended in employment / your job is your scholarship (example 70) | | | | | 1 | 1 | | | | | | | | | | 1 | | | | 1 | | | | | 4 | 16.67% |
| | government support is already existed but the problem is in the implementations/ control monitor is needed (axample) + (example 63??) | | | | | | | | | | 1 | | | | | | | | | | | | | | 1 | 2 | 8.33% |
| | Impose variety of tourism specializations in particular (example) | | | | | | | 1 | | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | increase awareness on tourism sector in early age at schools | | | | | | | | 1 | | | | | | | | | | | 1 | | | | 1 | | 3 | 12.50% |
| | Increase tourism institutions | | | | | | | | | 1 | | | 1 | | | 1 | | | | | | | | | | 3 | 12.50% |
| | Improve curriculums. | | | | | | | | | 1 | | | | | | | | | | | | | | | | 1 | 4.17% |
| | qualified employees to achieve Saudisation | | | | | | | | | | 1 | | | | | | 1 | | | 1 | | | | | | 3 | 12.50% |
| | increase advertisement on tourism institutes/ or media | | | | | | | | | | | 1 | | | | | | | | | | | | 1 | | 2 | 8.33% |
| | motivate Saudis to work in hotels | | | | | | | | | | | | | | | | | 1 | 1 | | | | | | | 2 | 8.33% |
| | expatriates bais and never supposrt Suadis (example 68) | | | | | | | | | | | | | | | | | | 1 | | | | | | | 1 | 4.17% |
| | announcement about future investment projects published by tourism commission | | | | | | | | | | | | | | | | | | | 1 | | | | | | 1 | 4.17% |
| | Hotels and privet companies in the industry of tourism should participate to develop saudi skills (example 69) | | | | | | | | | | | | | | | | | | | 1 | | | | | | 1 | 4.17% |
| | Governising of tourism functions in the private sector to attract Saudis worker (moral support) example 72 | | | | | | | | | | | | | | | | | | | | 1 | | | | | | |
| Legislation | increase and develop/support training institutions to provide the required training and skills | 1 | | | | | | | | 1 | | | | | | | | | | | | | | | | 2 | 8.33% |
| | Responsible authorities must support tourist education and training facilities. | | | | 1 | | | | | 1 | | | | | | | | | | | | | | 1 | | 3 | 12.50% |
| | improve work environment | 1 | | | 1 | | | | | | | | | | | | | | | | | | | | | 2 | 8.33% |
| | attract Saudis to tourism sector | 1 | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | follow up | 1 | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | increase awareness on tourism sector (example 73) | 1 | | | | | | 1 | | 1 | | | | | | | | | | | | | 1 | 1 | | 5 | 20.83% |
| | link training curriculum to labor market requirments (practical training) | | 1 | | | | | | | 1 | | | | | | | | | | | | 1 | | | 1 | 4 | 16.67% |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Training must be in a world level for tourism sector that alllow Saudi to work any where in the world (professional accreditation) | | | 1 | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | Scholarship on leader jobs like (hotel manager) to reduce expats | | | 1 | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | Creat tourism secondary schools | | | 1 | | | | | | 1 | | | | | | | 1 | | | | | | | | | | | | 3 | 12.50% |
| | impose Saudisation in hotel manager jobs | | | | 1 | | | | | | | | | | | | | | 1 | | | | | | | | | | 2 | 8.33% |
| | increase salaries and incentives (example 56) | | | | 1 | | 1 | 1 | | | | | | | | | | 1 | | 1 | 1 | | | | | | | | 6 | 25.00% |
| | impose vocational/ profession licence to workeres | | | | | 1 | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | improve trasportation facilities | | | | | | 1 | | | | 1 | | | | | 1 | | | | | 1 | | | | | | | | 4 | 16.67% |
| | Increase Saudisation in tourism sector | | | | | | | 1 | | | | | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | reduce long working hours | | | | | | | 1 | | | | | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | impose legislations sutible for women to attract more female to the sector (example 75) | | | | | | | 1 | 1 | | | | | | | | | | | 1 | 1 | | | | | | | | 4 | 16.67% |
| | needs to clarify career paths in tourism sector | | | | | | | | 1 | | | | | | | | | 1 | | 1 | | | | | | | | | 3 | 12.50% |
| | increase Saudi behavioral skills | | | | | | | | | 1 | | | | | | 1 | | | | | | | | | | | | | 2 | 8.33% |
| | benefit from the other countries experiences to improve tourism field (example) | | | | | | | | | 1 | | | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | most companies existed in tourism sector are privet where the job scurity low | | | | | | | | | | | 1 | | | | | | | | | | | | 1 | | | | | 2 | 8.33% |
| | impose and clarify regulations on ther rights of labours and employers | | | | | | | | | | | | | | | | | | | | | | 1 | | | | | | 1 | 4.17% |
| | tourists | | | | | | | | | | | | | | | | | | | | | | | 1 | | | | | | | |
| Culture | awareness programs on tourism sector (example) | 1 | 1 | 1 | 1 | | 1 | 1 | 1 | | 1 | 1 | 1 | | 1 | 1 | | | | 1 | 1 | | | 1 | 1 | 1 | 1 | | 17 | 70.83% |
| | attract more Saudis through social media | 1 | | | | | 1 | 1 | | | | | 1 | 1 | 1 | 1 | 1 | | | | | | | | | | | | 8 | 33.33% |
| | Cooperation between authorities | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | increase salary in low status jobs | | 1 | 1 | | | | | | | | | | | | | | 1 | | | | | | | | | | | 3 | 12.50% |
| | Increase awareness on giving higher value to low jobs | | | 1 | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | increase awareness on tourism sector in early age at schools (example) | | | 1 | | | 1 | 1 | | 1 | | | | | | | | | | 1 | | | | | | | 1 | | 6 | 25.00% |
| | now a days Saudis culture is changing toward tourism industry | | | | | | | | | | | | | | | | | 1 | 1 | | | | | | | 1 | | | | |
| | Rules and conditions change society's culture (example 68) | | | | | | | | | | | | | | | | | | 1 | | | | | | | | | | 1 | 4.17% |
| | develop behavioral skills | | | | | | | | | | | | | | | | | | | 1 | | | | | | | | | 1 | 4.17% |
| | change Saudis culture toward tourism sectore (example 72) | | | | | | | | | | | | | | | | | | | | | | 1 | 1 | | | | | 2 | 8.33% |
| | increase work ethic | | | | | | | | | | | | | | | | | | | | | | 1 | | | | | | 1 | 4.17% |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 0 | 0.00% |

| Themes | Question 5<br>CONCEPTS | 52 | 53 | 54 | 56 | 65 | 66 | 67 | 75 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 55 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | Tot | %age |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Government | Develop training programs to meet labour market needs | 1 | | 1 | | 1 | | 1 | | | 1 | | | | 1 | 1 | | | | | | | | | | 7 | 29.17% |
| | cooperation between resposible authorities for emproving tourism sector/ AL HOKAIR | 1 | | | 1 | 1 | 1 | 1 | 1 | 1 | | | | | | 1 | | | 1 | exa 1 | | | | | | 10 | 41.67% |
| | increase service and behavioral skills and culture | | | 1 | | | | | | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | incease communication skills | | | 1 | | | | | | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | Financial Support / scholarship | | | | | exa 1 | 1 | | | | | | 1 | | | | | 1 | 1 | | | | | | | 5 | 20.83% |
| | Monitor and control | | | | | | | | | | | | | | | | | | | | | 1 | | 1 | 1 | 4 | 16.67% |
| | increase awareness on tourism sector | | | | | | | | | | | | | | | | 1 | | | | | | | | 1 | 2 | 8.33% |
| | increase awareness on tourism sector at school | | | | | | | | | 1 | | | | | | | | | | | | | | | | 1 | 4.17% |
| | skill passport project | | | | | | | | | | exa 1 | | | | | | | | | | | | | | | 1 | 4.17% |
| | focuse on practical training | | | | | | | | | | 1 | | | | 1 | | | | | 1 | 1 | | | | | 4 | 16.67% |
| | Increase tourism institutions all over the KSA | | | | | | | | | | | 1 | | 1 | | 1 | | | | | | | | | | 3 | 12.50% |
| | Strengthen English language | | | | | | | | | | | | 1 | | | | | | | | | | | | | 1 | 4.17% |
| | activate special forums in tourism sector | | | | | | | | | | | | | | | | 1 | | | | | | | | | 1 | 4.17% |
| | Saudi Government support is existed to fulfil labor market with Saudis | | | | | | | | | | | | | | | | | exa 1 | | | | | exa 1 | | | 3 | 12.50% |
| | your job is your scholarship | | | | | | | | | | | | | | | | | | | 1 | | | | | | 1 | 4.17% |
| | | | | | | | | | | | | | | | | | | | | | | | | | | 0 | 0.00% |
| VET centers | partnership with international authorities | 1 | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | updating and improve training programs and curriculums that meet labour market needs | 1 | | 1 | | | 1 | 1 | | | | | | | | 1 | | 1 | | 1 | 1 | | 1 | 1 | 1 | 11 | 45.83% |
| | focusing on practical training | | 1 | | | | | 1 | | | 1 | | | | | | | | | | | | 1 | | | 4 | 16.67% |
| | Attract specialized and qualified trainers | | | exa 1 | 1 | | | | | | | | | | | | | | | | | | 1 | | | 3 | 12.50% |
| | Follow up with their graduates | 1 | | | | | 1 | | exa 1 | | | | | | | | | | | | | | | | | 2 | 8.33% |
| | to have work environment inside institutions | | | | | | | | 1 | | | | | | | 1 | | | | | | | | | | 2 | 8.33% |
| | increase awareness on tourism sector | | | | | | | | | | | | | | | | 1 | | 1 | | | | | | | 2 | 8.33% |
| | conduct preference interviews on students and direct them to the suitable place | | | | | | | | | exa 1 | | | | | | | 1 | | | | | | | | | 2 | 8.33% |
| | cooperate with organisations in tourism field/ decision makers | | | | | | | | | | 1 | | 1 | | | | | 1 | | | 1 | | | | 1 | 5 | 20.83% |
| | Facilitate trasportation and housing for trainees | | | | | | | | | | | 1 | | | | | | | | | | | | | | 1 | 4.17% |
| | intensive announcement about trainees' courses | | | | | | | | | | | | | 1 | | | | | | 1 | | | | | | 2 | 8.33% |
| | financial support to attract trainees/ motivation, incentives | | | | | | | | | | | | | 1 | | | | | | | | | | | | 1 | 4.17% |
| | clarify future career paths | | | | | | | | | | | | | 1 | | | | | | | | | | | | 1 | 4.17% |
| | Facilitate easy access of information to VET centers websites | | | | | | | | | | | | | | | | | | | | | | | 1 | | 1 | 4.17% |
| | | | | | | | | | | | | | | | | | | | | | | | | | | 0 | 0.00% |
| Trainers | qualified and experienced enough | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | | 1 | | | 1 | 1 | 1 | | | | 1 | | 1 | 1 | 16 | 66.67% |
| | to be updated to new changes | | | 1 | 1 | | | 1 | | | 1 | | | | | | | | | 1 | | | | 1 | | 6 | 25.00% |
| | Increase trainees awareness and skills on tourism sector | | | | | | | | | | | | | | | | 1 | | 1 | | | | | | | 2 | 8.33% |
| | motivate and and calrify the future orientation for trainees | | | | | | 1 | | | | | 1 | | 1 | | | | | 1 | | | | 1 | 1 | | 6 | 25.00% |
| | focus on practical activities | | | | | | | | | | | | 1 | | | | | | | | | | | | | 1 | 4.17% |
| | must avoid personal relations | | | | | | | | | | | | | 1 | | | | | | | | | | | | 1 | 4.17% |
| | responsible for skill transformation | | | | | | | | | | | | | | 1 | 1 | | | | | | | 1 | 1 | 1 | 5 | 20.83% |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | 0.00% |
| Trainees | Must have desire and commitment | 1 | | | | 1 | 1 | | 1 | 1 | | 1 | | 1 | 1 | 1 | 1 | 1 | | 1 | 1 | 1 | 1 | | 1 | 16 | 66.67% |
| | Self development | | 1 | 1 | | | | 1 | | | | | 1 | | | | | | 1 | | | | | | 1 | 6 | 25.00% |
| | focuse on practicing what have been learned | | | 1 | 1 | | | 1 | | | | | | | 1 | | | | 1 | | | | | 1 | | 6 | 25.00% |
| | focuse on computer and language skills | | | 1 | | | | | | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | increase awareness on tourism sector and avoid negative views | | | | | | | | | | 1 | | 1 | | | | | 1 | 1 | | | | | | | 4 | 16.67% |
| | Finanical incentive | | | | | | | | | | exa 1 | | | | | | | | | | | | | | | 1 | 4.17% |
| | | | | | | | | | | | | | | | | | | | | | | | | | | 0 | 0.00% |
| Graduates | work in their specializations | 1 | 1 | | 1 | exa 1 | | | 1 | 1 | | 1 | 1 | 1 | | | | 1 | 1 | 1 | | 1 | 1 | | | 14 | 58.33% |
| | give feedback for improvement | 1 | | | | | 1 | 1 | | | | | | | | | 1 | 1 | 1 | | | | | 1 | | 7 | 29.17% |
| | adapted to the labour environment | | | 1 | | | | | | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | increase awareness | | | | | | 1 | | | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | training ends with employment supported from HRDF | | | | | | | | | 1 | | | | | | | | | | | | | | | | 1 | 4.17% |
| | skills passport project provide skillful graduates | | | | | | | | | | 1 | | | | | | | | | | | | | | | 1 | 4.17% |
| | self development/ continues development | | | | | | | | | | 1 | | | | 1 | 1 | | | | | 1 | | | 1 | 1 | 6 | 25.00% |
| | Follow up with graduates | | | | | | | | | | | | | | exa 1 | | | | | | | | | | | 1 | 4.17% |
| | Play a role to attract Saudis to the field of tourism | | | | | | | | | | | | | | 1 | | 1 | | | | | | | | | 2 | 8.33% |
| | contribute in to the economy. | | | | | | | | | | | | | | | | | 1 | | | | | | | | 1 | 4.17% |
| | | | | | | | | | | | | | | | | | | | | | | | | | | 0 | 0.00% |

| Themes | Question 6a<br>CONCEPTS | 52 | 53 | 54 | 56 | 65 | 66 | 67 | 75 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 55 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | Tot | %age |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Training Quality | Concentrate on practical training more than theoretical | 1 | | 1 | | | | | 1 | | 1 | 1 | | 1 | 1 | | | | | | | | 1 | 1 | | 9 | 37.50% |
| | practical experiences to qualify Saudis hold leading jobs (example 53) | | 1 | | | | | | | | | | | | | | 1 | | | | | 1 | 1 | | | 4 | 16.67% |
| | On the job training | | 1 | | | | | | | | | | | | | | 1 | 1 | | 1 | | 1 | | | | 5 | 20.83% |
| | College of Excellence considered as a good practice | | | | 1 | | | | | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | benchmark the training programs to be more specialized (CPM, IMP) | | | | | | | exa 1 | | | | | | | | 1 | | | | | | | | | | 2 | 8.33% |
| | provide qualified trainers | | | | | | | | | | | | | | | | | | 1 | | | | 1 | | | 2 | 8.33% |
| | consider successful countries in tourism as an example | | | 1 | | | | | | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | have hospitality secondary school | | | | | | | | | 1 | | | | | | 1 | | | | | | | | | | 2 | 8.33% |
| | Training ends with employment | | | | | | | | | | | | | | | 1 | | | | | | | | | | 2 | 8.33% |
| | | 1 | 1 | 1 | 1 | | | 1 | 1 | 1 | 1 | 1 | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | 1 | 1 | 1 | | 19 | |
| Culture, Awareness & Job choices | Increase awareness on tourism sector (examples on best practices related to awareness) | exa 1 | | 1 | | | exa 1 | | | | | 1 | | | | 1 | | | | | 1 | | | | 1 | 7 | 29.17% |
| | Increase awareness on tourism sector at schools | 1 | 1 | 1 | | exa 1 | exa 1 | 1 | | | | | | | | | | | | | 1 | | 1 | | 1 | 10 | 41.67% |
| | Tourism diversity influences cultural diversity | | | | | exa 1 | | | | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | Hejaz society participation in tourism sector is more effective than Najd's | | | | | | | | | | | | | | | | | | | | | | 1 | | | 1 | 4.17% |
| | | 1 | 1 | 1 | | 1 | 1 | 1 | | | | 1 | | | | 1 | | | | | 1 | | 1 | | 1 | 11 | |
| Labour Market Needs | cooperation between educational/ training institutions and tourism labor market (example 53) | 1 | 1 | | | | 1 | 1 | | 1 | 1 | | | | | | | | 1 | | 1 | | 1 | | | 9 | 37.50% |
| | link between VET and labot market requirement | | | | 1 | 1 | | | | | | | | | 1 | | | | | | | | | 1 | | 4 | 16.67% |
| | motivation and incentives to have better preformance | 1 | | | | | | | | | | | | | | 1 | | | | | | | | | | 2 | 8.33% |
| | provide good work environment | 1 | | 1 | | | | | | | | | | | | | | | | | | | | | | 2 | 8.33% |
| | Self-learning | | | | | 1 | | | | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | Continuous development | | | | | 1 | | | | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | Communication skill,English language | | | | | | | | | | | | 1 | | | | | | 1 | 1 | | | 1 | | 1 | 5 | 20.83% |
| | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | 1 | 1 | | 1 | | 1 | 1 | | | 1 | 1 | 1 | | 1 | 1 | 1 | 18 | |
| Financial support | government support | | | | | | | | | | | | | | | | | | 1 | | | | | | | 1 | 4.17% |
| | | | | | | | | | | | | | | | | | | | 1 | | | | | | | | |

| Themes | Question 6b<br>CONCEPTS | 52 | 53 | 54 | 56 | 65 | 66 | 67 | 75 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 55 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | Tot | %age |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Training Needs | lack in languages and soft skills (communication skills) | | | | | | 1 | 1 | 1 | | | 1 | 1 | | 1 | | | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 13 | 54.17% |
| | General education is not good as some baisc skills should be learned from early ages | | | 1 | | | | | | | | 1 | | 1 | | | 1 | | 1 | | | | 1 | | | 6 | 25.00% |
| | lack of practical training | | | | 1 | | | | | | | | | | | | 1 | | | | | | | 1 | 1 | 4 | 16.67% |
| | weak in marketing skills | | | | | 1 | | | | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | the need for etiquette and protocols courses | | | | | | | 1 | | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | lack of varaity of tourism specialisations | | | | | | | | 1 | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | | | | 1 | 1 | 1 | 1 | 1 | 1 | | | 1 | 1 | 1 | 1 | | 1 | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 18 | 75.00% |
| Cooperation | cooperation between tourism org and and MOE | 1 | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | cooperation between HRDF and training institutions and privet orgnisations | | | | | | 1 | | | | | | | | | | | 1 | | | | | | | | 2 | 8.33% |
| | | 1 | | | | | 1 | | | | | | | | | | | 1 | | | | | | | | 3 | 12.50% |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Saudia avoide hard work | | 1 | | | | | | | | | | | | | | 1 | | | | | | | | | 2 | 8.33% |
| | saudi consider it as a temporary jobs/ no desire | 1 | 1 | | | 1 | | | | | | | | 1 | | | 1 | 1 | | 1 | 1 | | 1 | 1 | 1 | 11 | 45.83% |
| Culture, Awareness & Job choices | incentives and support are need to attract more saudis/ family support | | 1 | | | | | | | | | | | 1 | | | | | | 1 | | | 1 | | 1 | 5 | 20.83% |
| | weakness in saudis culture and awareness on tuorism sector(examples) | 1 | 1 | 1 | 1 | 1 | 1 | | 1 | 1 | | | | 1 | 1 | 1 | 1 | 1 | | | | 1 | 1 | | 1 | 16 | 66.67% |
| | low salaries | | | 1 | | | | | | | | | | | | 1 | 1 | | | 1 | | | | | | 4 | 16.67% |
| | lack in commitment | | | | | 1 | | | | | | | | | | | 1 | | | 1 | 1 | 1 | | 1 | | 6 | 25.00% |
| | Geographical differences/ Jeddah is more flixeble about mixture idea (women & men) | | | | | | 1 | | | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | tourism awreness in Jeddah is good due to religion tourism | | | | | | | | 1 | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | low female participation on tourism sector/ mixture hindering improvement | | | | | | | | | 1 | | | | | 1 | | | | | | 1 | | | | | 3 | 12.50% |
| | Saudis participation in tourism agencies are more than hotels due to culture of shame | | | | | | | | | | 1 | | | | | 1 | | | | | | | 1 | | | 3 | 12.50% |
| | Saudi prefer government jobs due to its high job security | | | | | | | | | | | | | 1 | | | | | | | | | | | | 1 | 4.17% |
| | low work ethic | | | | | | | | | | | | | | | | 1 | | | | 1 | 1 | 1 | | | 4 | 16.67% |
| | due to segregation law in Saudi socity workers are lack of comunication with other gender | | | | | | | | | | | | | | | | 1 | | | | 1 | | | | | 2 | 8.33% |
| | work environment in Movinpick is good | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1 | 4.17% |
| | | 1 | | 1 | | 1 | | | | 1 | | | | 1 | | 1 | | 1 | | 1 | | 1 | | 1 | | 10 | 41.67% |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Monitor & Control | Identify weakness throug doing studies and research on recruitment | 1 | | 1 | | | | 1 | | | | | | | | | | | | | | | | | | 3 | 12.50% |
| | | 1 | | 1 | | | | 1 | | | | | | | | | | | | | | | | | | 3 | 12.50% |
| Tourism Labour Market/ Expats Bias | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | KSA don't provide tourism Visa | | | | | | | | 1 | | | | | | | | | | | | | | | | | 1 | 4.17% |
| | high rate of expats in tourism sector (resturants & houskeeping) | | | | | | | | | 1 | | | | 1 | | | | 1 | | | | | | | | 3 | 12.50% |
| | women is not allowed to work in resturants & houskeeping | | | | | | | | | 1 | | | | | | | | | | | | | | | | 1 | 4.17% |
| | Saudisation in hotels mostly on frontdesk or security and limited in others | | | | | | | | | | | | | | | | | 1 | | | | | | | | 1 | 4.17% |
| | competition between expats and Saudis in Tourism sector | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1 | 4.17% |
| | very few Saudi hotel mangers | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1 | 4.17% |
| | saudi participation in tourism sector is increasing | | | | | | 1 | | | | | | | | | | | 1 | | | | | | | | 2 | 8.33% |
| | | | | | | | 1 | | 1 | 1 | | | | 1 | | | | 1 | | | | | | | 1 | 6 | 25.00% |

| | Question 7 | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Themes | CONCEPTS | 52 | 53 | 54 | 56 | 65 | 66 | 67 | 75 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 55 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | Tot | %age |
| Training Qaulity | focus on skills needed for each profession | 1 | | | 1 | | | 1 | | | | | 1 | | | | | | | | 1 | | | | | 5 | 20.83% |
| | develop qualified trainers | 1 | | | | | | | 1 | | | | | | | 1 | | | | | | | | | | 3 | 12.50% |
| | develop curriculim on requiremnets | 1 | | | | | | | | | | | 1 | | | | | 1 | | | | | | | | 3 | 12.50% |
| | continues training is very important to gain experience | | | | | | | 1 | 1 | | | | | | | | | | | | | | | | | 2 | 8.33% |
| | Student should be directed to future jobs (know their career path) | 1 | | | | | | | | | | | | | | | | | | | | | | 1 | | 2 | 8.33% |
| | Determined qualifications | | | exa 1 | | | | exa 1 | | | | | | | | | | | | | | | | | | 2 | 8.33% |
| | cross training | | | | | | | | | | | | | | exa 1 | | | 1 | | | | | | | | 2 | 8.33% |
| | workers acceptance, readiness /Tendency Measurement | | | 1 | 1 | | | | | | | | | | | | | | | 1 | | | | | | 3 | 12.50% |
| Skills Needed | improve behavioral skills (hospitality skills ) | 1 | | 1 | | | | | | | | | | | | | | | | 1 | | 1 | 1 | | | 5 | 20.83% |
| | English language skills | | | 1 | | | | 1 | | | 1 | | | | | | | | | | | | | | | 3 | 12.50% |
| | communication skills is very important in tourism sector | | | | | | 1 | 1 | | | 1 | | | | | | | | exa 1 | | | 1 | 1 | 1 | 1 | 8 | 33.33% |
| | focus more on practical skills than theoretical | | | | | | 1 | 1 | 1 | 1 | | | | 1 | 1 | | 1 | 1 | | 1 | | 1 | 1 | 1 | 1 | 13 | 54.17% |
| Cooperation | unification of efforts among related authorities | | 1 | | | | | | | | 1 | | | | | | 1 | | | | | | 1 | | | 4 | 16.67% |
| | meet labour market needs | | | 1 | | | | | | | 1 | | | 1 | | | | | | | | | | | | 3 | 12.50% |
| Culture, Awareness & Job choices | Increase awareness on tourism sector/ over depending on expats effect | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Saudis thinking and participation in this field negatively | | | 1 | | | | | | | | exa 1 | | 1 | | | | | 1 | | 1 | | 1 | 1 | | 9 | 37.50% |
| | increase tourism institutions and attract more Saudis youth | | | | | | | | | | | 1 | | | | | | | | | | | | | | 1 | 4.17% |
| | Increase motivation and incentives in tourism sector | | | | | | | | | | | | 1 | | | | | | | | 1 | | | | | 2 | 8.33% |
| | adapt with the real local culture | | | | | | | | | | | | | | | | | 1 | | | 1 | | | | | 2 | 8.33% |
| | Different tourism activities among different cities in KSA | | | | | | | | | | | | | | | | | | | | | | exa 1 | | | 1 | 4.17% |
| | must have the culture of mixture | | | | | | | | | | | | | | | | | | | | | | | 1 | | 1 | 4.17% |